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Comprehensive VOC Investigation Report

The Lockformer Company
Lisle, Illinois

Volume 2 of 6: Section 3.0 through Section 9.1

Clayton Project No. 15-65263.01.008
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SECTION 3

3.0 COMPREHENSIVE SAMPLING PLAN

This section is intended to provide the chemical and physical methods used to analyze samples collected during the comprehensive VOC field investigation activities. The sampling plan associated with the investigation activities focused on the collection of soil and groundwater data to evaluate the site hydrogeologic conditions and to determine the extent and character of VOC concentrations at the site. Sampling activities included the collection of soil, sediment, and groundwater samples for chemical and/or physical analyses.

3.1 SOIL SAMPLE ANALYSIS

Soil samples were collected for both chemical and physical analyses. All soil samples selected for chemical analysis were collected using method 5035 preservation techniques.

3.1.1 Chemical Analysis

Fixed laboratory chemical analytical services for the investigation were provided by First Environmental Laboratories, Inc. in Naperville, Illinois. Soil samples selected for chemical analysis were analyzed for the presence of VOCs using method 8260b.

Some soil analyses associated with the sanitary sewer investigation in Area 3 were performed by gas chromatograph utilizing a mobile lab. These data were developed in real time to guide field investigations. Mobile chemical analytical services were provided by A+ Environmental, Inc. of Weidman, Michigan. Soil samples selected for mobile chemical analysis were analyzed for the presence of a select group of VOCs by proposed method 5021 using a portable gas chromatograph. The VOC group was developed using the constituents of concern established for the site and consisted of

1,1,1-trichloroethane, 1,1-dichloroethylene, trans-1,2-dichloroethylene, cis-1,2-dichloroethylene, trichloroethylene, and tetrachloroethylene.

3.1.2 Physical Analysis

Soil samples selected for physical analysis were subjected to one or more of the following laboratory analyses:

- Moisture Content Determination – ASTM D 2216
- Bulk Density Determination – ASTM D 2937
- Grain Size Analysis – ASTM D 422
- Specific Gravity of Soils – ASTM D 894
- Total Organic Carbon – Non-Carbonate Carbon Method

Laboratory analysis for moisture content, bulk density, grain size, and specific gravity was performed by Schleede Hampton Associates, Inc. in Elk Grove Village, Illinois. Total Organic Carbon analysis was conducted by either the University of Michigan National Center for Integrated Bioremediation Research and Development in Ann Arbor, Michigan or LECO Corporation in St. Joseph, Michigan.

3.2 SEDIMENT SAMPLE ANALYSIS

Sediment samples were collected and analyzed for the presence of VOCs in the same manner described in Section 3.3.1 for fixed laboratory analysis.

3.3 GROUNDWATER SAMPLE ANALYSIS

Groundwater samples were collected to evaluate the presence of VOCs and to obtain general groundwater chemistry information for the site and vicinity.

3.3.1 VOC Analysis

Fixed laboratory VOC analytical services were provided by First Environmental Laboratories, Inc., using method 8260b. Additionally, the 15 largest tentatively identified compound (TIC) peaks associated with the 8260b analysis were evaluated for select samples and compared to the EPA library for identification.

Some groundwater grab sample analyses were performed in association with investigations of the sanitary sewer line in Area 3. These grab samples were analyzed in the field by a mobile laboratory to provide real time data and better direct field investigations. Mobile VOC analysis was performed by A+ Environmental, Inc. Groundwater samples selected for mobile chemical analysis were analyzed for the presence of the same group of VOCs discussed in Section 3.1.1 by the same method.

3.3.2 General Groundwater Chemistry Analysis

Groundwater samples collected to obtain general groundwater chemistry parameters were analyzed for the presence of the following list of indicator parameters:

Constituent	*Analysis Method*
Ethene/Ethane	3810 modified
Oxidation-Reduction Potential	In-field Horiba U-22 utilizing a flow-through cell
Dissolved oxygen	In-field Horiba U-22 utilizing a flow-through cell
Iron (filtered)	3010A/6010B
Manganese (filtered)	3010A/6010B
Sulfate	9038
Sulfide	376.2
Nitrate	353.2 R.2.0
Chlorides	9251
Total Organic Carbon	9060
Chemical Oxygen Demand	410.4

First Environment Laboratories, Inc. performed laboratory analysis for all constituents except ethane/ethane, dissolved oxygen, and oxidation-reduction potential. Pace Analytical Services, Inc. in Minneapolis, Minnesota performed laboratory analysis for ethane/ethane. Dissolved oxygen and oxidation-reduction potential measurements were performed in the field.

SECTION 4

4.0 DOCUMENTATION OF FIELD ACTIVITIES

This section is intended to provide a rationale and a narrative description of the field activities conducted as part of this comprehensive VOC field investigation. The field activities predominantly consisted of a soil and groundwater investigation designed to supplement the results from previous investigations conducted at the site. The field activities focused on the collection of groundwater information in an attempt to determine the extent and character of the VOCs in the groundwater in the vicinity of the site, and the collection of soil information to better define the nature of the soil and the extent of soil contamination at the site.

The majority of field activities associated with this investigation were conducted as a series of individual investigation efforts, with the scope of each effort developed using the most current information available. The presentation of the field activities discussion is arranged in a similar series in an attempt to best describe the rationale of each effort. The results of the investigation activities are discussed in Section 6.0.

Continuous soil samples were collected during field investigation activities conducted as a result of the May 25, 2001 IEPA-approved Work Plan. The soil samples were classified in intervals that did not exceed 2 feet. The soil samples were logged by a geologist according to the Unified Soil Classification System (USCS). The soil samples were screened for the presence of VOCs using a photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp. Upon acquisition, a portion of each soil sample was placed in a sealable plastic bag, allowed to reach ambient temperature, and headspace-screened to determine the presence of VOCs using a PID. Throughout the documentation of field activities, this soil sample evaluation process is referred to as the standard for soil sample logging and screening. The results of the evaluations were documented on Monitoring Well Completion and/or Soil Boring Logs, presented in Appendix 9.4. All soil borings not completed as monitoring wells were immediately backfilled to surface

grade with either bentonite chips or high-solids bentonite grout, and finished to match surrounding surface conditions.

Field logs to document daily field activities were prepared during the implementation of each investigation effort and are presented in Appendix 9.2.

4.1 1000 SERIES INVESTIGATION

The 1000 Series investigation included the advancement of three soil borings (CSB-1000 through CSB-1002) to better define the nature and extent of soil contamination identified by the 800 Series soil borings conducted by previous investigations concentrated in Area 2 of the site. The soil borings were advanced along the western portion of Area 2 (west of soil boring locations SB-807 and SB-805) to facilitate the collection of soil samples for chemical and physical analysis. These soil borings were advanced using hollow stem augers. Soil samples were continuously collected throughout the depth of each boring using a 1.5-inch-diameter, carbon steel, split spoon sampler. The soil samples were logged and screened in standard fashion.

Multiple soil samples from each soil boring were selected for both chemical and physical analysis. The selection for chemical analysis was determined using both elevated PID results from sample headspace screening and the location of the soil sample within the profile relative to contaminated soil samples collected from the 800 Series soil borings. Soil samples selected for chemical analysis were collected using method 5035 preservation techniques and submitted to First Environmental Laboratories, Inc. in Naperville, Illinois for VOC analysis using method 8260b. The selection for physical analysis was determined using the location of the soil sample within the soil profile relative to various soil textures that had contained or confined contaminated soil samples in previous soil borings. Soil samples selected for physical analysis were submitted to Schleede Hampton Associates, Inc. for grain size analysis by ASTM D 422 and to the

University of Michigan National Center for Integrated Bioremediation Research and Development for organic carbon analysis in the manner described in Section 3.0.

4.2 1100 SERIES INVESTIGATION

The 1100 Series investigation included the advancement of soil borings and the installation of both glacial and bedrock groundwater monitoring wells to facilitate the collection of soil and groundwater information. The information was intended to better define the nature and extent of VOC impacts identified by previous investigations conducted in Areas 1 and 2 of the site.

The initial phase of the 1100 Series investigation consisted of the installation of eight sets of monitoring well clusters (MW-1100S/D, MW-1101S/D, MW1102S/D, MW-1103S/M/D, MW-1104S/D, MW-1110S/D, MW-1111S/D, and MW-1112S/D) and three bedrock groundwater monitoring wells (MW-1105D, MW-1106D, and MW-1107D) located beyond the limits of VOC impacts identified by previous site investigations (Figure 2.4.7-1). Each well cluster consisted of two or three adjacent monitoring wells: one well completed in the water-bearing mass waste sediments, one well completed in the water-bearing lower coarse-grained sediments (if encountered), and one monitoring well completed within the Silurian dolomite bedrock.

Drilling activities associated with all monitoring wells included in the first phase of the 1100 Series investigation were performed using rotasonic drilling techniques. Rotasonic drilling techniques provide continuous samples using either 4-inch-diameter or 6-inch-diameter, 10-foot-long, steel sampling tubes advanced within a secondary casing. All soil samples were logged and field-screened in a manner similar to that described in Section 4.1. Due to the close proximity of monitoring wells within a single well cluster, only soil samples collected from drilling locations completed as bedrock groundwater monitoring wells were considered for laboratory chemical analysis. From each of these

locations, soil samples with headspace screening results exceeding 5 parts per million (ppm) were initially selected for laboratory analysis for VOCs. Upon receipt of a series of sample analysis results indicating no detections of VOCs, another selection method was utilized. From each location, samples exceeding the 5 ppm selection trigger were submitted for potential laboratory analysis, but only a few of the samples exhibiting the most elevated headspace results were initially analyzed. The remainder of the samples selected for potential analysis were archived, pending the initial results. If analytical results for the selected samples identified VOC concentrations exceeding objectives, other archived samples were selected for analysis. Otherwise, additional analyses were not performed. Soil samples selected for VOC analysis were collected using method 5035 preservation techniques and submitted to First Environmental Laboratories for analysis using method 8260b.

4.2.1 Bedrock Monitoring Well Installation Procedures

Well installation activities for each bedrock groundwater monitoring well included in the first phase of the 1100 Series investigations were performed using rotasonic drilling techniques that provide continuous core sampling from surface grade to competent bedrock. Competent bedrock was defined as the acquisition of a bedrock core greater than one foot in thickness that did not contain greater than a one-inch deposit of clay, silt, or sand. Upon reaching competent bedrock, either a 6-inch inner diameter (ID) or 6-inch outer diameter (OD) steel surface casing was installed in the borehole to extend from one foot below the competent bedrock surface to above surface grade. A neat cement/ bentonite grout was placed around the steel casing as the rotasonic casing string was removed from the hole. The rotasonic casing string was raised incrementally during placement of the grout to maintain the appropriate hydraulic head within the casing, and ensure a good casing-grout seal.

Following a minimum 48-hour period to allow the grout to set, drilling out from the surface casing was performed utilizing either air rotary or rotasonic techniques. Each hole was cored to approximately 25 feet into the competent rock with the exceptions of MW-1100D, MW-1102D, and MW-1103D. MW-1100D was terminated approximately 7 to 8 feet into the competent rock due to drilling difficulties caused by a loss of downhole air circulation. MW-1102D and MW-1103D were cored to approximately 80 feet into competent rock. Upon acquisition, the bedrock cores were analyzed in detail and logged for reporting purposes. Drilling breaks were noted and correlated with the core fracture analysis, and rock quality designations (RQDs) were logged. The rock core was marked, labeled, and placed in wooden core boxes to preserve the exact nature of the retrieved core to the extent practicable. Clayton has maintained the rock cores in a safe location to allow subsequent review and analysis.

Each bedrock well was completed either above surface grade or to surface grade with a locking protective cap.

4.2.2 Glacial Monitoring Well Installation Procedures

The installation of the glacial wells associated with the first phase of the 1100 Series investigation was performed using rotasonic drill techniques similar to those discussed in Section 4.2.1. Upon reaching the final completion depth, a monitoring well was installed through the rotasonic outer casing. Glacial monitoring wells were constructed using flush-threaded, 2-inch ID, stainless steel, 0.010-inch machine-slotted screen and 2-inch ID stainless steel riser. No adhesives, solvents, or grease were used. A sand filter pack was installed adjacent to the screen via tremie line to extend to a height of approximately 2 feet above the upper screen interval. A minimum 2-foot bentonite seal was placed over the sand filter pack and hydrated with tap water. A bentonite/grout mix was placed above the bentonite seal to approximate surface grade. The drill casing string was raised incrementally during placement of the sand pack, annular seal, and grout.

Glacial monitoring wells finished above grade were completed with a 6-inch-diameter protective casing and locking cover. Ventilation holes were drilled through the center of the riser caps on those wells finished above grade to allow for pressure equalization between the well casing interior and ambient conditions. Glacial monitoring wells finished at surface grade were completed in a flush-mount protective cover set in concrete pad. Riser caps on those wells finished at surface grade were not ventilated due to the increased threat of surface water entering the well casing.

4.2.3 Packer Testing

Packer testing was performed on each bedrock well completed during the first phase of the 1100 Series investigation to evaluate the presence of VOCs in the bedrock groundwater. Packer testing consists of acquisition of discrete groundwater samples from open holes using an inflatable bladder (packer) sealing system in combination with both perforated and solid pipe. The packer testing equipment used at the site included both single packer systems and double packer systems, also known as straddle packer systems.

4.2.3.1 Single Packer Testing

Single packer testing was performed at each bedrock well associated with the well clusters installed during the first phase of the 1100 Series investigation (MW-1100D through MW-1105D, and MW-1110D through MW-1112D). Bedrock wells MW-1100D through MW-1105D were tested throughout the length of each open corehole, and MW-1110D through MW-1112D were tested in the upper 10 feet of corehole. The single packer tests were performed at the time of drilling to isolate approximately the bottom 7 feet of the corehole. After each 10-foot core run, the packer was installed in the hole and inflated to isolate the lower 7 feet of the corehole. Purging of each interval included the removal of any water lost to that section during coring, plus approximately four 10-foot corehole volumes using a submersible pump to reasonably assure to the extent

practicable that a representative formational groundwater sample could be acquired. If dry conditions were encountered within an isolated section, development activities were abandoned after approximately 30 minutes of attempted water removal. After purging the test section of a corehole, a groundwater sample was acquired via sample port integrated into the discharge line. The sample was collected in laboratory-supplied containers and submitted for fixed laboratory VOC analysis by method SW8260b.

4.2.3.2 Double (Straddle) Packer Testing

Double packer testing was initiated by performing a down-hole camera survey of the corehole to determine sections of the rock that would not accommodate the seating of the packer bladders.

Double packer testing was performed at each bedrock well performed during the 1100 Series investigation. A double packer system consists of two inflatable bladders that are positioned at the top and bottom of a length of perforated pipe. The double packer system is able to isolate a discrete length of open corehole for development and/or groundwater sampling. This is accomplished by lowering the double packer assembly to the desired section of corehole and inflating the bladders to create a seal with the corehole walls, isolating the section of corehole between the bladders. Water from the isolated section of corehole can then be withdrawn through the perforated pipe located between the bladders.

Upon completing the down-hole camera survey in each corehole, the double packer testing was performed across approximately 8-foot intervals of corehole. Development of each 8-foot length of corehole included the removal of any water lost to that section during coring, plus an additional 300 gallons, using a submersible pump. If dry conditions were encountered within an isolated section, development activities were abandoned after approximately 30 minutes of attempted water removal. During this

purge pumping, pressure transducers were installed above and below the tested section of corehole to assess leakage around the packer bladders to the extent possible. At the same time, for testing activities in MW-1100D through MW-1105D, pressure transducers were installed in the bedrock coreholes adjacent to the test corehole to detect any measurable drawdown response in those coreholes. The pressure transducers were routed to one central data logger for recording.

After purging the double packer test section of corehole, the submersible pump was removed from down hole, and a bladder pump was installed for groundwater sample acquisition using procedures similar to those discussed in Section 4.2.3.1 for single packer testing.

4.2.4 Glacial Monitoring Well Development Procedures

After a minimum 48 hours following installation, the monitoring wells were developed using a new disposable bailer and/or electrical submersible pump. Prior to development, the static water level and the total depth at each well were measured using an electronic water level indicator. The measurements were referenced to a marked survey location on the rim of the well riser. The two measurements were used to calculate the volume of standing water in each well (well volume). Monitoring well development was performed by surging and purging using a bailer and/or electrical submersible pump. A minimum of ten well volumes of water from each well was removed or, if there was insufficient water, the well(s) were bailed/pumped dry at least five times. Turbidity of the development water was monitored throughout the development process. If necessary, additional water was removed in order to further reduce turbidity.

4.2.5 Groundwater Sampling Procedures

Prior to water sample collection from glacial monitoring wells, a static water level measurement in each well was acquired, and a minimum of three casing and filter pack volumes of water was removed from each monitoring well, or purged dry five times. If necessary, purging of each well continued until measurements in the purged water stream for temperature, pH, and conductivity had stabilized for three consecutive readings. The stabilization criteria consisted of the following:

- Temperature: $\pm$ 0.5 °C
- pH: $\pm$ 0.1 unit
- Conductivity: $\pm$ 15%

Purging was conducted using a submersible pump or bladder pump. All groundwater samples were acquired by bladder pump. Groundwater samples for laboratory analyses were collected in laboratory-supplied containers, labeled, and properly sealed. The sample labels included sample number, place of collection, date and time of collection, and analyses to be performed. The samples were delivered under proper chain of custody protocol to an independent laboratory for analyses.

4.2.6 Groundwater Analysis

Groundwater samples collected from the glacial wells advanced during the first phase of the 1100 Series investigation were analyzed for the presence of VOCs (including the 15 largest tentatively identified compounds [TICs]) and select geochemistry parameters consistent with the methods and procedures discussed in Section 3.3.

Groundwater samples collected during packer testing of the bedrock wells were also analyzed for the presence of VOCs + 15 TICs consistent with the methods and

procedures discussed in Section 3.3, except for the single packer test samples collected from MW-1100D through MW-1105D. Those analyses did not include a search for the 15 TICs.

4.2.7 Additional 1100 Series Investigation Activities

Based on the results from soil and groundwater analysis conducted as part of the first phase of the 1100 Series investigations, additional investigations were required to further define the nature and extent of VOC impacts identified at the site. The additional investigations included the installation of three monitoring well clusters (MW-1108S/D, MW-1113S/M/D, and MW-1114S/D) and three glacial monitoring wells (MW-1109, MW-1115, and MW-1116).

Based on the presence of TCE in the shallow groundwater at MW-1102S, monitoring well cluster MW-1113S/M/D was installed in the southernmost portion of Area 2 to evaluate the presence of VOCs in that area. Monitoring well cluster MW-1114S/D was installed along the central-western edge of Area 2 to evaluate the presence of VOCs in that area of the site. The well clusters were installed using rotasonic methods in the same manner as the well clusters installed during the first phase of the 1100 Series investigations. Packer testing (single and double), well development, groundwater sampling, and groundwater analysis (including the 15 TICs) were also conducted in the same manner.

Monitoring well cluster MW-1108S/D was installed in the TCE fill pipe area to evaluate the presence of VOCs in the groundwater within the lower sand and bedrock in that area. Due to the presence of elevated VOC concentrations in the upper silty clay till/fill and mass waste sand and gravel units in this area, the installation of these wells included an additional protective isolation casing extending from surface to several feet into the lower till. The protective casing for MW-1108D consisted of a 10-inch steel casing that was

installed using mud rotary techniques. The protective casing for MW-1108S consisted of a 6-inch steel casing that was installed using rotasonic methods. The remaining installation activities for the MW-1108S/D well cluster were performed in the same manner as the well clusters installed during the first phase of the 1100 Series investigations. Packer testing (single and double), well development, groundwater sampling, and groundwater analysis (including the 15 TICs) were also conducted in the same manner.

Glacial monitoring wells MW-1115 and MW-1116 were installed at the southern portion of Area 3 to better define the nature and extent of VOC impacts identified in the shallow groundwater in that area of the site during the 1500 Series investigation. MW-1115 and MW-1116 were installed immediately adjacent to 1500 Series investigation borings CSB-1570 and CSB-1559, respectively. Due to height limitations imposed by overhead electric lines, these wells were installed using a low-profile drill rig equipped with hollow stem augers. Upon reaching completion depth, the monitoring wells were constructed within the auger string in the same manner as described in Section 4.2.2 for glacial wells completed above surface grade. Well development, groundwater sampling, and groundwater analysis were conducted in the manner discussed in Section 4.2.4 through Section 4.2.6 for glacial wells.

Glacial monitoring well MW-1109 was installed immediately adjacent to MW-520, which had been damaged and abandoned during investigation activities. The well was installed using rotasonic methods. Construction, development, groundwater sampling, and laboratory groundwater analyses were similar to the methods used in other 1100 Series glacial monitoring wells.

Due to the lack of certainty involving the lithologies encountered during previous investigation efforts in the southern portion of Area 2, two stratigraphic control borings (CSB-126B and CSB-521B) were performed adjacent to existing monitoring wells

MW-521 and MW-126. The soil borings were advanced using rotasonic drilling methods and logged and field-screened in standard fashion. Soil samples were selected for fixed laboratory chemical analysis in the same manner described for the advancement of the bedrock wells earlier in this section.

4.3 1200 SERIES INVESTIGATION

The 1200 Series investigation included the advancement of 11 soil borings (CSB-1200 through CSB-1210) in the TCE fill pipe area to facilitate the collection of soil samples (and potentially groundwater samples) for analysis. The investigation was intended to better define the physical characteristics of the subsurface and better define the nature and extent of soil contamination in that area.

The 1200 Series Investigation soil borings were performed using rotasonic methods. Each soil boring was sampled continuously throughout its depth and evaluated in standard logging and screening fashion. In general, each soil boring was advanced through the surficial silty clay till and fill and through the mass waste sand and gravel unit to the upper surface of the lower till. At each location, immediately upon penetrating the upper surface of the lower till, drilling ceased for a minimum of approximately 30 minutes to determine if the soil moisture was sufficient to allow accumulation within the borehole and potential for down-hole cross-contamination. At locations where a measurable accumulation (using an electronic water level indicator extended into the rotasonic casing) was identified during the evaluation period, a grab water sample was collected from within the casing (using a new disposable bailer), and the drilling was terminated. The sample was placed into a laboratory-supplied container and retained for potential laboratory analysis. The grab samples were slurry-like in appearance, due to the high solids content, and very likely did not yield usable groundwater information. At locations where no accumulation occurred, drilling continued to the top of competent bedrock.

Soil samples were selected for laboratory chemical analysis using headspace screening results and lithology as determining factors. In general, the soil sample exhibiting the highest headspace PID reading from approximately each 10-foot interval while drilling was submitted for laboratory chemical analysis. The samples were selectively submitted to allow, at a minimum, an upper and a lower soil sample analysis from each major lithology encountered (i.e., upper silty clay till/fill, mass waste sand and gravel, lower till, lower sand, etc.). All soil samples selected for chemical analysis were collected using method 5035 preservation techniques and submitted to First Environmental Laboratories for VOC analysis by method 8260b.

Soil samples were selected for physical analysis using lithology as the primary determining factor. In general, one soil sample was selected from the upper and lower portions of each lithology encountered with each soil boring for laboratory physical analysis. The samples were submitted to Schleede Hampton Associates for geotechnical analyses, and to LECO Corporation for organic carbon analysis, in the manner described in Section 3.0.

4.4 1300 SERIES INVESTIGATION

The 1300 Series investigation included the advancement of 29 soil borings (CSB-1300 through CSB-1328) within the footprint of the site building to facilitate the collection of soil information. The investigation was focused on areas adjacent to the facility's sewer system to evaluate the presence of soil contamination, and in the former vapor degreaser area to better define the extent of soil contamination identified during previous investigations (Figure 6.1.1-1).

4.4.1 1300 Series Sewer System Investigation

Figure 6.1.1-1 presents an as-built diagram of the Lockformer facility building and illustrates the location and construction of storm and sanitary sewer piping, and floor drains within the site building. All sewer piping in the building is made of cast iron. A review of the video camera survey of the sewer system (performed in 1994) indicates the cast iron pipe is installed in 6-foot joints.

The main header line for both the storm and the sanitary sewer systems runs east to west, just north of the former vapor degreaser area. The header exits from under the building on the west side, and enters into a concrete block where it transitions to vitrified pipe. The main east-west header piping has laterals running north and south at regular intervals throughout the building. On the sanitary system, these laterals typically lead to floor drains. The exceptions to this are:

- Plumbing vent stacks.
- Plumbing to the restroom, adjacent to the double truck dock.
- Plumbing to the degreaser pit that receives water from the vapor chiller and distillation unit. This line is sealed and would not allow flow from the degreaser pit.

The storm sewer system services downspouts from roof drains. One exception to this occurs in the double truck dock at the north end of the building. The truck dock has a sump at its southeast corner that is connected to the storm sewer system.

Seventeen soil borings (CSB-1300 through CSB-1314, and CSB-1327 through CSB-1328) were advanced in the site building to evaluate potential releases from the sewer system (Figure 6.1.1-1). The borings were located along the sewer system to evaluate sections of the sewer upstream of each location and thereby isolate any contamination identified as coming from that specific section of the sewer system. Any

contamination problem associated with a particular section of the sewer system could then be further investigated effectively.

At each sewer boring location, the facility's concrete flooring was cored and removed to allow access to the subsurface soils for sampling. Soil sampling was performed using a portable hydraulic probe unit (HPU). The HPU uses a direct-push soil sampler that consists of a 2- or 4-foot-long, hollow steel barrel that houses a dedicated acetate liner. One end of the barrel is closed and attached to a length of steel rod. The remaining end of the barrel remains open to accept soil samples. The open end of the sampler is hydraulically driven into the subsurface, while the soil enters the sample barrel and liner. Upon reaching the desired sample interval, the sample barrel is retrieved, and the liner (containing the soil sample) is removed for evaluation.

In general, each soil boring was advanced to approximately 16 feet bgs, sampled continuously throughout its depth, and evaluated in standard logging and screening fashion. Soil samples were selected for laboratory chemical analysis using headspace screening results as the primary determining factor. Location within the soil profile was a secondary determining factor. Typically, for each soil boring, the sample exhibiting the most elevated headspace reading from each 10 feet of sample depth was selected for analysis. Additionally, samples were often selected from the base of the soil borings to evaluate the presence of VOC concentrations at depth. In the absence of elevated headspace readings, soil samples were typically selected from depths corresponding to the base of the adjacent sewer line.

All soil samples selected for chemical analysis were collected using method 5035 preservation techniques and submitted to First Environmental Laboratories for VOC analysis by method 8260b.

4.4.2 1300 Series Former Degreaser Area Investigation

Twelve soil borings (CSB-1315 through CSB-1326) were advanced in the former vapor degreaser area of the site building to better define the extent of soil contamination in that area (Figure 6.1.1-1). Soil borings were initiated at locations adjacent to the former vapor degreaser and then extending away from the area.

At each boring location, the facility's concrete flooring was cored and removed to allow access to the subsurface soils for sampling. Soil sampling was performed using a portable HPU in the same manner described in Section 4.4.1.

In general, each soil boring was advanced to approximately 16 feet bgs, sampled, evaluated, and selected for laboratory chemical analysis in the same manner described in Section 4.4.2. However, in the absence of elevated headspace readings, soil samples were typically selected from depths corresponding to intervals of contaminated soil that had been identified during previous investigations conducted in the area.

All soil samples selected for chemical analysis were collected using method 5035 preservation techniques and submitted to First Environmental Laboratories for VOC analysis by method 8260b.

4.5 1400 SERIES INVESTIGATION

The 1400 Series investigation included the advancement of eight soil borings (CSB-1401 through CSB-1408) in the vicinity of the only pedestrian doorway located on the south side of the site building (Figure 6.1.1-1). This is the only pedestrian entrance/exit doorway to the operations portion of the Lockformer facility, other than the entrance/exit doorway by the TCE tank source area on the west side of the building. The purpose of

the 1400 Series investigation was to determine if any surface spills had occurred in this area.

Soil borings were advanced to approximately 16 feet bgs using a HPU, sampled continuously throughout its depth in the same manner described in Section 4.4.1, and evaluated in standard logging and screening fashion. Soil samples were selected for laboratory chemical analysis using headspace screening results as the primary determining factor. Typically, for each soil boring, the sample exhibiting the most elevated headspace reading from each five feet of sample depth was selected for analysis. In the absence of elevated headspace readings, soil samples were typically selected from intervals corresponding to near surface to better evaluate the presence of a surface source, or from intervals at which elevated headspace readings were identified in other 1400 Series soil borings.

All soil samples selected for chemical analysis were collected using method 5035 preservation techniques and submitted to First Environmental Laboratories for VOC analysis by method 8260b.

4.6 1500 SERIES INVESTIGATION

The 1500 Series investigation included the advancement of 52 soil borings to facilitate the collection of soil and groundwater information to better define the nature and extent of VOC impacts identified during the 1100 Series investigation. The need for this investigation was realized when an elevated TCE concentration in the groundwater sample collected from MW-1113S (located at the southern limit of Area 2) indicated the potential presence of a secondary source of VOC contamination not associated with the TCE fill pipe area. The investigation was focused along the southeast boundary and southern perimeter of the site, in the vicinity of a historical storm water discharge head wall and the sanitary sewer line that currently services the site (Figure 6.2.1-1).

Soil borings were typically advanced to a minimum of approximately 16 feet bgs (unless sampler refusal was encountered or the sanitary line was near surface) using a HPU, sampled continuously throughout their depth (in the same manner described in Section 4.4.1), and evaluated in standard logging and screening fashion. Soil samples were selected for laboratory chemical analysis using headspace screening results as the primary determining factor. The location of the soil sample within the soil profile was a secondary factor. Typically, for each soil boring, the sample exhibiting the most elevated headspace reading from each 8 feet of sample depth was selected for analysis. In the absence of elevated headspace readings from soil borings advanced in the vicinity of the historical headwall, soil samples were typically selected from intervals near the surface to better evaluate the presence of a surface source. In the absence of elevated headspace readings from soil borings advanced elsewhere along the sanitary sewer line, soil samples were typically selected from intervals corresponding to the depth of the line (if reached) or from intervals with elevated field screening results identified in previous 1500 Series soil borings.

Soil samples selected for analysis were collected using method 5035 preservation techniques and either analyzed for select VOCs using method 5021 and a portable gas chromatograph that was staged onsite or analyzed at an offsite laboratory using method 8260b.

At locations where groundwater was encountered within the borehole, a groundwater grab sample was collected from within the borehole for analysis. Access to the groundwater within the borehole was established by either lowering a dedicated disposable PVC screen and riser down the open borehole into the water or, if the borehole walls had partially collapsed, a slotted HPU push rod (also known as a mill slot) was advanced down the borehole into the water-bearing zone. Groundwater grab samples were collected in laboratory-supplied containers using a peristaltic pump equipped with disposable PVC tubing. The grab samples were either analyzed for select VOCs using a

portable gas chromatograph that was staged onsite or analyzed at an offsite laboratory using method 8260b.

Additional information pertaining to the fixed laboratory and mobile analytical procedures is presented in Section 3.0.

4.7 1600 SERIES INVESTIGATION

The 1600 Series investigation included the advancement of soil borings and the installation of both glacial and bedrock groundwater monitoring wells to facilitate the collection of soil and groundwater information. The information was intended to better define the geology of the area and to investigate the presence of VOC contamination in the vicinity of the site.

The first phase of the 1600 Series investigation included the installation of three monitoring well clusters (MW-1600S/D, MW-1601S/D, and MW-1602S/D) at locations within the Ellsworth Industrial Park, located southeast of the site (Figure 2.4.8-18). The well clusters were installed using rotasonic methods, continuously sampled, logged and screen in the same manner as the well clusters installed during the 1100 Series investigation. No soil samples were selected for laboratory analysis.

Additionally, each well cluster was packer tested (single and double), developed, sampled, and analyzed in the same manner as the well clusters installed during the 1100 Series investigations.

The second phase of the 1600 Series investigation included the installation of three glacial wells (MW-1603 through MW1605) in the residential area located south of the site (Figure 2.4.8-13). Drilling was conducted using hollow stem augers. Soil samples were continuously collected using split-spoon samplers in the same manner discussed in

Section 4.2.7 for glacial monitoring wells MW-1115 and MW-1116. Additionally, the wells were installed and developed in the same manner discussed in Section 4.2.2 and Section 4.2.4 for glacial wells completed to surface grade.

4.8 CATCH BASIN INVESTIGATION

As part of the VOC investigation, a catch basin investigation was conducted to evaluate VOC contamination in the catch basin sediments. The investigation was initiated by examining the interior of each catch basin and manway identified in the vicinity of the site west parking lot (Figure 6.1.1-3). When sediment was present in the manway or catch basin, a sample was collected using method 5035 preservation techniques and submitted for VOC analysis by method 8260b.

4.9 PRELIMINARY PUMP TEST

Testing was performed on MW-1102D to evaluate the maximum sustainable yield of the corehole and obtain water quality analysis to assist in the conceptual design of an extended pump test at the site. The test was conducted by pumping approximately 95 gallons per minute from MW-1102D using a submersible pump set at approximately 155 feet bgs. Prior to and during pumping, water level measurements were collected from the well to determine the draw down associated with the pumping. The measurements were collected with an electric water level indicator and recorded for each minute during the first 10 minutes of pumping, and every 5 minutes thereafter for the first hour. After the first hour, water levels were recorded every 15 minutes throughout the completion of the 6-hour test. The effluent flow rate and total volume were recorded along with each water level. At the end of each pumping hour, a groundwater sample was collected from the effluent via a sample port integrated into the discharge line, for a total of 6 samples. The samples were collected to provide information as to quality of the effluent and to determine the water management requirements that would be necessary

during an extended pump test. The samples (MW-1102D #1 through MW-1102D #6) were collected in laboratory-supplied containers and analyzed for the presence of select VOCs using an onsite gas chromatograph. Additionally, duplicate samples were collected at the 5-hour mark (1102D-004) and the 6-hour mark (1102-005) and submitted to First Environmental Laboratories for VOC analysis using method 8260b.

Discharge water was collected in two 20,000-gallon aboveground storage tanks, pending the results of the water quality samples. Upon receipt of non-detect VOC results for all water samples and approval from the Village of Lisle and the DuPage County Sanitary District, the effluent water was discharged into the sanitary sewer system.

4.10 SOIL PILE INVESTIGATION

Field activities associated with the comprehensive VOC investigation included the investigation of a pile of soil generated by Bill Kay Chevrolet (Bill Kay) during its excavation of a retention basin on its property south of the site (Figure 2.4-2). The investigation was intended to determine if elevated VOC concentrations were associated with the contents of the soil pile. The soil pile measured approximately 140 feet in width, 230 feet in length, and up to approximately 12 feet at its highest point. Lockformer had granted Bill Kay permission to store the soil on the site while they were completing construction activities at their property.

The soil pile investigation activities included the collection of 20 soil samples from 10 different locations across the soil pile in an evenly distributed grid sampling pattern. Two soil samples were collected from each of the 10 sampling locations, one collected at the surface (3 to 6 inches in depth), and one sample acquired by hand auger at approximately 3 to 4 feet in depth. Each of the 20 soil samples was collected using method 5035 preservation techniques and analyzed for VOCs by method 8260b.

4.11 EQUIPMENT DECONTAMINATION

A decontamination area for drilling/well installation equipment was established at the site. The area was constructed in a manner that allowed the collection of all decontamination materials. A high-pressure power washer supplied with potable water was used for decontamination of truck-mounted drilling equipment. Prior to entering the site, all appropriate parts of truck-mounted drilling equipment were thoroughly washed with a standard commercial soap and clean water to remove soil, oil, and grease. Before initiating drilling activities and between each location, the appropriate parts of the equipment (including split spoons, augers, drill bits, drill rods, core barrels, casings, and any associated tools that enter boreholes) was high-pressure washed at the decontamination station.

Sampling equipment such as down-hole pumps, split spoons, bailers, and scoops that were be reused during sampling were decontaminated between each sampling location. This decontamination protocol consisted of scrubbing the equipment with an Alconox or comparable solution and tap water wash, followed by a distilled water rinse. One exception to this method involved the rotasonic sample core barrel. Due to the size and manageability of the 10-foot-long core barrel, its decontamination consisted of an internal potable water rinse between samples. The core barrel was high-pressure washed at the decontamination station between boring locations.

Mud and surficial soils removed during the equipment decontamination process were managed with investigation-derived soils as described in Section 4.12.1. Decontamination water was managed as outlined in Section 4.12.2.

4.12 MANAGEMENT OF INVESTIGATION-DERIVED MATERIALS

Investigation-derived materials were generated during the implementation of many investigation activities. Such materials included soils from drilling/coring activities, soils and liquid from equipment decontamination, and liquids from monitoring well development and groundwater sampling.

4.12.1 Management of Investigation-Derived Soils

Investigation-derived soil was containerized, labeled, and staged at the site. The material was managed as either hazardous waste or non-hazardous special waste, as determined by the materials' VOC concentrations with respect to the most conservative health risk-based soil remediation objectives established in Title 35 of the IAC Code, Part 742 *Tiered Approach to Corrective Action Objectives* (TACO).

Soil containing VOC concentrations exceeding the most conservative health risk-based soil remediation objectives established in TACO was managed as hazardous waste. The material was characterized (Pollution Control Industries Profile # 175723) and transported under manifest by a licensed transporter to Pollution Control Industries (PCI) in East Chicago, Indiana (EPA ID IND000646943) for disposal.

Soil containing VOC concentrations below the most conservative health risk-based soil remediation objectives established in TACO was managed as non-hazardous special waste. The material was characterized (PCI Profile # 205944) and transported under manifest by a licensed transporter to PCI for disposal.

4.12.2 Management of Investigation-Derived Liquids

Investigation-derived liquids were containerized, labeled, and staged onsite. The material was characterized as hazardous waste liquid (Waste Management Profile # BG376) and transported under manifest by a licensed transporter to Waste Management's CID Bio Liquid Treatment Center (BLTC) in Calumet City, Illinois (EPA ID ILD010284248) for disposal.

4.13 SURVEY

Upon completion of each soil boring and groundwater monitoring well, locations were surveyed by a licensed surveyor for both horizontal and vertical control. Survey points for each well were referenced to a predetermined location on the rim of the well riser and a ground elevation immediately adjacent to the well.

SECTION 5

5.0 QUALITY ASSURANCE PROJECT PLAN

The Quality Assurance Project Plan (QAPP) implemented for the comprehensive VOC investigation was developed to ensure the collection of usable soil and groundwater information that would meet the investigation objectives. To that end, the QAPP included performance criteria for field sampling, chain of custody, and laboratory activities.

Due to the quantity of information collected during the investigation effort, the detailed, third-party validation of the laboratory analysis has not been completed to date. Internal evaluation of the analysis has been conducted and indicates that the data is of good quality and is sufficient for interpretive use. The completion of the validation process is anticipated by June 1, 2002. Upon completion, the information will be submitted under separate cover.

5.1 SAMPLING PROCEDURES

The sampling procedures used in this investigation were consistent for the purpose of this project. Section 4 outlines the sampling procedure information.

5.2 CUSTODY PROCEDURES

This section describes the custody procedures performed during the investigations. Custody is one of several factors necessary for the admissibility of environmental data as evidence in a court of law. Custody procedures help to satisfy the two major requirements for admissibility: relevance and authenticity. Sample custody has been addressed in two parts: field sample collection and laboratory analysis.

A sample is under your custody if:

- The item is in actual possession of a person.
- The item is in the view of the person after being in actual possession of the person.
- The item was in actual physical possession but is locked up to prevent tampering.
- The item is in a designated and identified secure area.

5.2.1 Field Custody Procedures

Field logbooks were prepared to record data collecting activities performed. Entries were described so that persons going to the site could reconstruct a particular situation without reliance on memory.

Field logbooks consisted of bound field survey books or notebooks. Logbooks were assigned to field personnel, but were stored in a controlled location when not in use. Each logbook was identified by the project-specific document number.

Entries into the logbook contained a variety of information, typically including dates, start times, names of subject personnel, level of personal protection, task description (i.e., sampling activities), and the signature of the person making each entry entered.

Samples were collected following the sampling procedures documented in Section 4. The sample packaging and shipment procedures ensured that the samples arrived at the laboratory with the chain of custody intact and within the samples' respective holding times for each parameter. A protocol for specific sample numbering was utilized to provide a unique identification for each sample to be submitted for analysis.

5.2.2 Laboratory Custody Procedures

Laboratory custody procedures for sample receiving and log-in, sample storage and numbering, tracking during sample preparation and analysis, and storage of data have not been fully evaluated to date. Upon completion, the information will be incorporated into the final submittal of the validation effort.

5.3 CALIBRATION PROCEDURES AND FREQUENCY

This section describes the calibration procedures and the frequency at which these procedures were performed for both field and laboratory instruments.

5.3.1 Field Instrument Calibration

Field instruments included a PID and a water quality meter. At a minimum, the instruments were calibrated daily, prior to use. Additionally, calibration checks were conducted throughout the use of the instruments.

5.3.2 Laboratory Instrument Calibration

The calibration frequency of the laboratory instruments has not been fully evaluated to date. Upon completion, the information will be incorporated into the final submittal of the validation effort.

5.4 ANALYTICAL PROCEDURES

Section 3 describes the methods by which groundwater and soil samples collected during field sampling activities were analyzed. The analytical procedures employed during this investigation were consistent for the purpose of this project.

5.5 INTERNAL QC CHECKS

QC checks of the laboratory analytical data was performed, in part, using the introduction of trip blanks and field duplicates to ensure the reliability and validity of the analysis.

A trip blank is a water sample prepared by the laboratory that is transported to the sampling site and is handled in the same manner as other samples, except that it remains unopened, and then is returned to the laboratory for analysis to determine QA/QC of sample handling procedures. The introduction of trip blanks was emphasized during the groundwater investigations. Trip blanks were introduced to all but one groundwater sample batch collected during the single packer testing, all but one groundwater sample batch collected during the glacial monitoring well sampling, and seven of the twelve sample batches collected during the double packer testing.

A field duplicate is a blind duplicate sample taken in the field and sent to the laboratory for analysis. The results provide some indication of the homogeneity of the sample medium and the precision of the laboratory and its equipment. The introduction of field duplicates was also emphasized during the groundwater investigations. Two field duplicates were introduced to the 33 groundwater samples collected during single packer testing, one field duplicate was introduced to the 57 samples collected during double packer testing, and five field duplicates were introduced to the 37 groundwater samples collected during glacial monitoring well sampling.

Other QC checks employed by the laboratory (matrix spikes, instrument blanks, etc.) have not been fully evaluated to date. Upon completion, the information will be incorporated into the final submittal of the validation effort.

6.0 INVESTIGATION RESULTS

The results of field investigations related to the Agreed Order entered into on January 22, 2001 between the IAG and Lockformer are presented and interpreted in this section. The scope of work that resulted in these investigations was identified through discussions between Lockformer, the IAG, and the IEPA and their consultants. These discussions resulted in the IEPA approval of the May 25, 2001 Lockformer *Comprehensive VOC Investigation Work Plan*. This approved work plan was subsequently amended by Addendum #1 dated July 16, 2001.

Many interpretations provided in this section of the report are based on discussions in previous sections of the report, with Section 2.4 providing the background for many of the interpretations. The data are presented in a graphical and tabular format with interpretations provided in the text. In most instances, the figures provided contain a summary of all investigation data collected to date, including data previously reported in the *Interim Investigation Report* prepared by Clayton and dated January 25, 2001. Exceptions include the figures and tables that deal with the extent of groundwater contamination at the site. The groundwater monitoring results for monitoring wells have not exhibited substantive changes through time. Any exceptions are discussed in the text with tabulated data provided as support. Most of the tabulated data contained in this report have been developed since the January 25, 2001 *Interim Investigation Report* developed by Clayton. To aid in the review of this data summary, all the boring logs from drilling performed to date involving investigations of the Lockformer site are provided in numeric sequence in Appendix 9.3.

6.1 AREA 1 AND AREA 2 INVESTIGATION SUMMARY

This section summarizes the results of the field investigations performed to date in Areas 1 and 2. Details regarding the process of collecting these data are provided in

Sections 3.0 and 4.0 of this report. The investigations in Areas 1 and 2 have primarily focused on releases that resulted from manufacturing processes associated with and potentially impacting the area under and around the facility building. These releases include those attributable to or associated with the former TCE fill pipe.

6.1.1 Area 1 and Area 2 Soil Investigations

6.1.1.1 Soil Investigations Related to Manufacturing Processes at the Lockformer Facility

Soil investigations related to the manufacturing processes at the Lockformer facility have primarily focused on the following areas within and directly around the facility building:

- The former TCE vapor degreaser.
- The sanitary and storm sewer lines and associated floor drains under the building floor.
- The south side door leading to the outside from the manufacturing operation.
- The basement area sump that collects water from the footing drains, and the secondary containment sump for the petroleum tank.

The results of all investigations performed around the former TCE vapor degreaser, the sanitary and storm sewer lines and associated floor drains under the building floor, and the south side exterior door are illustrated in Figure 6.1.1-1. The results of Clayton investigations around the former TCE vapor degreaser and the storm and sanitary sewer lines are tabulated in Table 6.1.1-1. The results of the soil borings around the south exterior door leading from the manufacturing operation are summarized in Table 6.1.1-2.

The results of the two investigation borings performed in the Lockformer basement area (adjacent to the footing drain sump and the sump in the secondary containment for the

petroleum tank) are illustrated in Figure 6.1.1-2. The data from these borings are summarized in Table 6.1.1-1.

A review of Figure 6.1.1-1 indicates that releases to shallow soils around the former vapor degreaser in the Lockformer facility building have taken place. The soil analytical results around the former vapor degreaser indicate that the vertical migration of the solvent contamination has, in great part, been limited to depths of less than 14 feet. The highest concentration of any contaminant found in any soil sample around the former degreaser at depths greater than 14 feet was determined in boring B-307. This sample was collected from 12.5 feet to 15 feet and exhibited a TCE concentration of 0.23 mg/kg.

Several soil samples obtained from the area around the former vapor degreaser exhibited PCE contamination. Most of the PCE soil concentrations were less than 1 mg/kg. However, two shallow soil samples collected at CSB-1317 and CSB-1318 near the north end of the degreaser exhibited PCE concentrations of 5.81 mg/kg (2 to 4 feet) and 1.32 mg/kg (4 to 6 feet), respectively. These data appear to be consistent with soil data on the west side of the Lockformer building where low-level PCE concentrations were determined to be present in soils around the former TCE fill pipe. These data would suggest that even though Lockformer has no record of ever purchasing PCE, it apparently was delivered to the facility at the former TCE fill pipe and used in the former vapor degreaser.

Extensive soil sampling was performed under the facility building to evaluate evidence of the sanitary and storm sewer pipes and their bedding materials as a source of contamination at the facility. The results of these soil sampling efforts appear in Figure 6.1.1-1. The main lines for the sanitary and storm sewer run east to west at approximately the midpoint of the manufacturing building. These sanitary and storm sewer main lines are made of cast iron pipe and exit from under the building on the west side into a concrete transition wall where the pipes are converted to vitrified clay. The

main east-west sanitary and storm lines have north-south collection spurs throughout the building.

The main east-west sanitary and storm lines and their bedding materials were evaluated by advancing five soil borings directly adjacent to the lines, and sampling the bedding materials around them. Likewise, each north-south collection spur was sampled to determine any impacts from release along their course. One particularly long spur on the east side of the facility had two borings advanced to evaluate it.

The results of soil sampling performed along the north-south collection spurs indicate that only minor leakage may have occurred from these sewers and that most, if not all, contamination exhibited by these bedding materials may be attributable to vapor migration. A review of the soil sampling data from borings advanced adjacent to the main east-west sewer lines indicates that only minor leakage has historically occurred from these lines. Only two samples exhibited concentrations above 1 mg/kg. These samples occurred in boring CSB-1300 from 4 to 6 feet in depth (exhibiting a concentration of 3.61 mg/kg) and boring CSB-1303 (exhibiting a concentration of 1.07 mg/kg at a depth of 4 to 6 feet). None of the soil sampling results from the sewer system investigations under the facility building indicates that the sewer system backfill or bedding materials have been a significant source of contaminant migration at the site. None of the data suggests there has been any dense non-aqueous phase liquid (DNAPL) migration through these bedding materials.

Figure 6.1.1-1 provides the results from soil borings CSB-1401 through CSB-1408. Several constituents were determined to be present in the shallow soils in this area. Vinyl chloride appears to be at low concentrations in several soil samples regardless of depth. The concentrations of acetone and 2-butanone are believed to be attributable to laboratory contamination. All constituents detected were determined to be at concentrations less

than their TACO Tier I Soil Remediation Objective for the Soil Component of the Groundwater Ingestion Exposure Route for Class I groundwater.

Soil sampling performed in the basement adjacent to the footing drain sump and the aboveground tank that supplies diesel for the facility backup generator is shown in Figure 6.1.1-2. Both borings exhibited non-detect concentrations for all constituents at all depths analyzed.

6.1.1.2 Soil and Sediment Sampling Related to Exterior Utility Lines in Areas 1 and 2

The storm and sanitary sewer catch basins and manholes in Areas 1 and 2 were inspected as part of the investigative work associated with the IEPA work plan. Samples of any sediment, if present in these catch basins and manholes, were submitted for laboratory analysis. Figure 6.1.1-3 illustrates the catch basins and manholes in Areas 1 and 2 that were inspected and sampled. The results of the sediment sample analyses are also indicated in this Figure. Table 2.1-3 summarizes the laboratory analytical results from sampling these catch basins and manholes.

A series of trenches were previously excavated along the utility lines in Areas 1 and 2 to determine the nature of any contamination that might have been released from the sewer systems and/or migrating through any coarse-grained bedding material associated with the sewers or other utilities. The location of the excavations and results of samples taken from them appear in Figure 6.1.1-3. The samples from these trenches were acquired as grab samples of the bedding material adjacent to the sewer pipe or utility line. The samples were obtained from a backhoe performing the excavation.

The storm and sanitary sewer catch basins and manholes at the Lockformer site, including invert elevations of pipes, were surveyed and appear in Figure 6.1.1-4. A comparison of the survey data for the pipe inverts at the catch basins and manholes

allows an analysis of the Carlson Environmental sampling performed around the sewer system. The piping elevation data and trench depths indicated by Carlson appear to match well and indicate each trench was excavated to the appropriate depth to obtain representative samples of the bedding material around the sanitary and storm sewer pipes. One possible exception occurs where Carlson trench sample TS-2 was obtained along the sanitary sewer near manhole MH-5 at the south end of the parking lot. This trench appears to have been deep enough to obtain a sample of the bedding material around the shallow sanitary sewer line leading from the north (believed to be the line coming out of the west side of the office building), but does not appear to have been excavated to a depth that would allow sampling of the sanitary line that discharges from the west side of the manufacturing building. However, two trench samples (TS-3 and TS-4) were obtained approximately 240 feet immediately north of this location along the same sanitary sewer lines at the appropriate depth. These samples would be indicative of any migration of contaminants along the sanitary sewer line from the manufacturing operation.

A review of the sewer system sampling data summarized in Figure 6.1.1-3 indicates that the sewer bedding materials have not been a significant source of contaminant migration in or from Area 1. The most elevated concentrations of contaminants found in any sample in the bedding materials were 0.970 mg/kg of cis-1,2-DCE and 0.220 mg/kg of TCE found in sample TS-5. Sample TS-5 was collected from the bedding material adjacent to the sanitary sewer line exiting the west side of the old boiler room (the southwest extension on the building). This TS-5 sample is located very close to the former TCE fill pipe. The concentrations of cis-1,2-DCE and TCE determined to be present in this sample are consistent with other soil sample results at similar depths in this area and are not indicative of migration along the sewer bedding material.

The results of catch basin and manhole sediment sampling indicate that the sewer system is not currently a source of contaminant migration. This data and conclusion does not

suggest that the sanitary sewer line has not historically been a significant source of contaminant releases in other portions of the site. The results of sewer system bedding material sampling suggest the bedding materials have not been a significant source of contaminant migration at or away from Area 1. There are no indications of DNAPL migration through these bedding materials and, with the exception of sample TS-5 located very close to the former TCE fill pipe area, the concentrations of contaminants determined to be present in the bedding materials are consistent with vapor migration.

6.1.1.3 Soil Investigations Related to the TCE Fill Pipe Releases

Soil investigations related to releases at the former TCE fill pipe have been extensive. Figures 6.1.1-5A through H illustrate all soil sampling results obtained to date from investigations to define the extent of the TCE contamination related to fill pipe releases. The results from recent investigations involving the 1200-series borings installed in the immediate vicinity of the former TCE fill pipe are provided in Table 2.1-4. Table 2.1-4a provides a summary of laboratory soil analytical results from wells and hydrostratigraphic borings installed during the hydrogeologic investigations related to the former TCE fill pipe.

Two cross-sections in the immediate vicinity of the former TCE fill pipe have been developed from the 1200-series borings installed during the investigations conducted in 2001. Figure 6.1.1-6 illustrates the locations for cross-sections SA-1 to SA-1' and SA-2 to SA-2'. Figures 6.1.1-7 and 6.1.1-8 illustrate the sequence of lithologies in the vicinity of the former TCE fill pipe along cross-sections SA-1 to SA-1' and SA-2 to SA-2'. Superimposed on cross-sections SA-1 to SA-1' and SA-2 to SA-2' are soil sampling results for TCE and cis-1,2-dichloroethene (DCE) and the potentiometric surface of the lower sand on November 30, 2001.

The data summarized in Figures 6.1.1-5A through Figure 6.1.1-5H (and portrayed in cross-section as Figures 6.1.1-7 and 6.1.1-8), when reviewed with the geology and hydrogeology discussion provided in Section 2.4, yield a good understanding of the contaminant migration in the vicinity of the former TCE fill pipe. The data suggests that TCE released to the surface of the ground near the former fill pipe infiltrated into soils and migrated laterally and vertically. The lateral migration in the shallow silty clay fill/till appears to have occurred over a fairly broad area in the vicinity of the spills at depths less than 20 feet (see Figures 6.1.1-5A, 6.1.1-5B, 6.1.1-5C, and 6.1.1-5D). This is likely to be the result of the fill placement and the existence of the indigenous soil zone below this fill at these shallow depths. The silty clay fill/till exhibits significantly less impact from the surface releases at depths greater than 20 feet. This lower zone is composed of indigenous silty clay ground moraine till. It is anticipated that vertical migration through fractures in this lower portion of the fill/till was the dominant migration pathway.

The shallow soils directly adjacent to the former TCE fill pipe exhibit concentrations indicative of separate phase TCE existing in the soils. Calculation regarding the amount of TCE residing in the silty clay fill/till soils at depths less than 30 feet in the vicinity of the former TCE fill pipe have been made and reported previously (August 14, 2001, *Removal Action Work Plan*). These calculations suggest that approximately 150 gallons of TCE reside in these upper silty clay fill/till sediments in the vicinity of the former TCE fill pipe.

After migration of the contaminants through the lower portion of the silty clay fill/till, the contaminants enter the mass waste unit. The mass waste unit is unconsolidated sand and gravel with varying, but often elevated, percentages of silt and clay. Upon entering the mass waste unit, the contamination appears to have predominantly migrated in the vertical direction, but some lateral migration appears to have also occurred. The large area in Figure 6.1.1-5F that exhibits concentrations in the mass waste unit, in excess of

the Tier I soil component of the groundwater migration pathway for groundwater, is likely caused in large part by vapor migration. It is likely that a combination of vapor migration and horizontal migration of the TCE along fine-grained partings and laminations within the mass waste unit has caused the observed spreading and rather uniform nature of the TCE occurrence throughout the unit.

TCE contamination migrating completely through the vertical thickness of the mass waste unit encounters the lower till. In the vicinity of the former TCE fill pipe, the mass waste unit sediments are unsaturated. The TCE that migrates down through the entirety of the mass waste unit encounters the low permeability of the lower till, and lateral runoff occurs along the surface of the lower till. Some of the TCE that has migrated along this lower till surface has become sorbed into the interstitial porosity of the lower till. The remainder of the TCE that has run off this surface has migrated into the saturated mass waste sediments in outlying areas away from the former TCE fill pipe where the water table condition occurs on the lower till in the mass waste unit (see Figure 2.4.8-4).

The TCE that has migrated down through the entirety of the mass waste unit to reach the lower till appears to have been transported as a soluble fraction in infiltrating rain water. The most elevated concentration of TCE in any soil sample determined to be present in the mass waste unit was collected from boring CSB-1200 at a depth of 46 to 48 feet and exhibited a concentration of 50.9 mg/kg. This boring is in close proximity to the former TCE fill pipe. The most elevated concentration of TCE in any soil sample acquired from the upper surface of the lower till was obtained from boring SB-807 at a depth of 48 to 50 feet and exhibited a concentration of 51 mg/kg. These soil sample analyses likely indicate precipitation recharge carrying soluble constituent TCE that has migrated down through the entirety of the mass waste unit to encounter the lower till. The distribution of TCE soil contamination in the mass waste unit identified in Figure 6.1.1-5F, and the distribution of soil contamination exhibited in soil samples acquired from the lower till surface in Figure 6.1.1-5G, suggest that the predominant migration pathway away from

the former TCE fill pipe area has been to the west toward groundwater monitoring well MW-522.

A review of the soil contamination results depicted on cross-section SA-1/SA-1' and SA-2/SA-2' in Figures 6.1.1-7 and Figure 6.1.1-8, respectively, indicate the lower till has maintained good competence and appears to have functioned well as an aquitard in the vicinity of the former TCE fill pipe, inhibiting contamination from migrating to the lower sand and Silurian dolomite. Figure 6.1.1-5H identifies the results of soil sampling in the lower till and weathered dolomite at and in the vicinity of the former TCE fill pipe. These data further indicate the lower sand and the dolomite have not been impacted by releases occurring at the former TCE fill pipe.

6.1.2 Area 1 and Area 2 Groundwater Investigations

Sample results from all monitoring wells completed in the glacial sediments during the Lockformer groundwater investigations and sampled since the January 25, 2001 Lockformer *Interim Investigation Report*, are tabulated and appear in Table 6.1.2-1. Groundwater sample results acquired in 2001 for wells completed in the saturated sediments of the upper fill/till and mass waste unit in Areas 1 and 2 appear in Figure 6.1.2-1. Figure 6.1.2-2 presents the results of wells installed with their well screens completed in the lower till during previous investigations. Sample results from the single packer tests performed during drilling of the bedrock wells during the Lockformer groundwater investigations are tabulated and appear in Table 6.1.2-2. The results of these single packer tests performed in bedrock coreholes in Areas 1 and 2 are illustrated in Figure 6.1.2-3. Sample results from double packer tests performed on the bedrock monitoring wells during the Lockformer groundwater investigations are tabulated and appear in Table 6.1.2-3. Figure 6.1.2-4 presents the results of double packer tests in Silurian dolomite coreholes in Areas 1 and 2. Table 6.1.2-4 provides the results of groundwater general chemistry analyses of glacial drift monitoring wells.

Water level measurements acquired from glacial drift and bedrock monitoring locations appear in Table 2.4.8-1.

Two groundwater monitoring wells, MW-101 and MW-123, are completed in the shallow silty clay fill/till in the vicinity of the former TCE fill pipe. Monitoring well MW-101 is located approximately 10 feet south of the former location of the TCE fill and vent pipes, and MW-123 is located approximately 58 feet north of the former fill and vent pipes. As Figure 6.1.2-1 demonstrates, significant differences in groundwater quality are exhibited by the two wells. The lack of impact at MW-123 is consistent with soil contamination results for the area in the fill/till and suggests that limited horizontal movement of groundwater occurs in these shallow saturated sediments.

The results of groundwater sampling at monitoring well MW-101 also indicate a significant amount of reductive dechlorination is occurring in the shallow fill/till glacial sediments. The shallow PCE and TCA soil contamination does not appear to result in groundwater contamination of MW-101 or any other well in Areas 1 and 2. In the case of PCE, it is likely that the PCE has reductively dechlorinated to TCE via anaerobic halorespiration processes. In the case of TCA, the absence of the TCA and the presence of both 1,1-dichloroethane (DCA) and 1,1-DCE suggests that both halorespiration and hydrolysis processes have been occurring. Further supporting these observations is the significant amount of halorespiration that apparently has taken place to reductively dechlorinate the TCE to cis-1,2-DCE in the shallow soils of the source area. The groundwater data from MW-101 suggest that over half of the TCE has degraded to cis-1,2-DCE in the shallow soils near the former TCE fill pipe source area.

Two shallow wells installed around the Lockformer building have been installed with their well screens completed through the bottom of the fill/till unit. These wells are installed in upgradient areas where contamination does not exist. Nevertheless, these wells should be considered for abandonment.

The groundwater in the shallow fill/till appears to leak down into the mass waste unit via fractures in the lower portion of the fill/till unit. Upon entering the mass waste unit, the contaminated groundwater appears to have migrated horizontally to some degree due to heterogeneities in the mass waste unit, but vertical migration appears to have been the most significant pathway. After migrating vertically to the lower till, the contaminated groundwater appears to run off along the upper surface of the lower till away from the area of the former TCE fill pipe. This runoff along the upper surface of the lower till in the unconsolidated coarse-grained sediments of the mass waste unit occurs until saturated conditions within the mass waste sediments are encountered in areas away from the former TCE fill pipe to the southwest and west. These saturated conditions in the mass waste unit on top of the lower till begin to occur once the upper surface of the lower till slopes down below an approximate elevation of 655 feet msl. This generally occurs in the vicinity of MW-516D to the southwest of the former TCE fill pipe, and in the vicinity of MW-522 to the west of the former TCE fill pipe. The conceptual model of subsurface migration of the constituents from the former TCE fill pipe area has wells MW-522 and MW-516D being installed closest to this mixing zone of lower till runoff into the mass waste unit sediments.

None of the concentrations of TCE or cis-1,2-DCE determined in groundwater monitoring well results in the saturated mass waste unit sediments indicate that DNAPL or pure phase TCE has migrated from the spills at the former TCE fill pipe to the mass waste unit. The TCE-impacted groundwater occurring at the mixing zone in the mass waste unit will migrate in the direction of the advective flow of groundwater. As discussed in Section 2.4.7, the groundwater in the mass waste unit in this area of the site migrates to the west-southwest. Utilizing the average fraction of organic carbon for the mass waste unit appearing in Table 2.4.7-2, a reasonable bulk density for the mass waste unit sediments of 1.6 kg/L, an effective porosity of 0.20, and a partition coefficient for TCE of 100 L/kg (Fetter 1993), the retardation of TCE migrating in groundwater of the mass waste sediments is approximately three. The range of groundwater seepage

velocities for the mass waste unit on the side of Area 2 was determined to be 2.3 to 52 feet per year in Section 2.4.8.1. The retardation value calculated here would suggest that TCE migration on the west side of Area 2 is in the order of 0.8 to 17 feet per year. This range of TCE transport velocities in the mass waste unit appears reasonable considering the lack of contaminant migration to downgradient monitoring wells. That is, offsite wells MW-1110S, MW-1111S, and MW-1112S are installed 210 to 375 feet downgradient of MW-522 on the west side of Area 2, and have not been impacted by TCE contamination to date.

To evaluate the range of interstitial groundwater flow and contaminant transport velocities, calculations were performed to evaluate how the groundwater flow and solute transport rates compared to expected recharge values for the site. The radial groundwater flow pattern in the mass waste unit of Area 2 lends itself conveniently to a calculation of the recharge at the Lockformer site (Walton, 1965). Upon performing these calculations by utilizing the average hydraulic gradient observed of 0.001 and the upper end of the hydraulic conductivity range, a Lockformer site recharge value of three-inches per year was estimated. This value agrees well with the recharge value for the Downer Grove area (Zeizel, et. al., 1962). However, these hydraulic conductivity values need to not only be in agreement with the apparent recharge rate, they also need to be predictive of the observed solute transport in the mass waste unit in Area 2. Another factor to be taken into consideration when performing these evaluations is that the historic recharge calculations for Downers Grove in the Cooperative Report (Zeizel, et. al., 1962), when applied to the Lisle area, suggest less recharge in the Lisle area (*Personnel Communication*, Thomas A. Prickett).

As a result of the observations above, additional solute transport estimates were made to identify a hydraulic conductivity for the mass waste sediments that reasonably approximate the solute transport observed in Area 2, and result in reasonable recharge estimates. The results of this analysis suggest that a hydraulic conductivity value of

$4x10^{-3}$ cm/sec for the mass waste unit results in a calculation for recharge at the site of 2.4 inches/year, and provides reasonable solute transport predictions. This hydraulic conductivity value is toward the upper range of the values predicted for the mass waste unit based on grain-size analyses.

Figure 6.1.2-2 summarizes the groundwater monitoring results from wells in Areas 1 and 2 that were installed and completed in the lower till during previous investigations at the site. The lower till exhibits horizontal hydraulic conductivities that are likely to be less than $1x10^{-5}$ cm/sec. As a result, these wells do not yield useful water level measurements for interpretation and comparison to other monitoring wells completed in more permeable units. The groundwater quality data from these wells are questionable for a variety of reasons. Some of these reasons include:

- Several wells were drilled and installed into the lower till directly after drilling through the contaminated sediments above.
- It is questionable if several wells have a bentonite seal installed above the well screen and, if so, whether it was installed in the proper location to prevent down-hole migration and cross-contamination.
- Several wells are constructed with 10-foot well screens that could act as vertical conduits to allow cross-contamination of the lower sand or the Silurian dolomite.

The wells of questionable usefulness and integrity include MW-120, MW-401, MW-402, MW-501D, MW-513D, MW-514D, MW-515D, and MW-517D. These wells should be considered for abandonment.

Figure 6.1.2-3 summarizes the groundwater monitoring results from single packer tests performed in the bedrock coreholes at the site. Figure 6.1.2-4 summarizes the groundwater monitoring results from monitoring wells completed in the lower sand and double packer tests performed in the bedrock coreholes at the site. The monitoring wells completed in the lower sand are included in Figure 6.1.2-4 with the corehole double

packer test results, because the lower sand is in direct hydraulic connection with the upper weathered portion of the bedrock, and may actually be a preferred pathway of contaminant migration, and could be expected to exhibit a similar groundwater quality as the Silurian dolomite aquifer. A review of Figures 6.1.2-3 and 6.1.2-4 indicates that all groundwater sampling performed in the lower sand and Silurian dolomite aquifer in Areas 1 and 2 are non-detect for VOCs with the exception of the following:

- A double packer test at MW-1114D, SPT46, indicated a 1.3 µg/L concentration of TCE. This particular packer test had a duplicate sample taken that was confirmed to be non-detect for all VOCs.
- Two single packer tests performed at MW-1100D detected a presence of TCE at 1.0 and 1.1 µg/L. Upon double packer testing these same two intervals later, the sample results indicated non-detect concentrations of TCE.
- A single packer test performed at MW-1110D indicated a concentration of PCE at 7.0 µg/L. Upon double packer testing this same interval later, the sample results indicated non-detect concentrations of PCE.

The results of testing in the Silurian dolomite aquifer in Areas 1 and 2 on the Lockformer site, and the area west of it, indicate no verifiable detection of any constituent of concern in the lower sand or the Silurian dolomite aquifer.

Further supporting the evidence there has been no impact to the lower sand and Silurian dolomite from Areas 1 and 2 are the groundwater sampling results from residential wells just to the southeast of the Lockformer facility along Elm and Chicago Streets. As identified in Figures 2.4.8-14 through 2.4.8-18, groundwater in the Silurian dolomite aquifer flows to the southeast in Areas 1 and 2 on the Lockformer site. The residential wells located along Elm and Chicago Streets are directly downgradient in the groundwater flow from Areas 1 and 2 at the Lockformer facility. Several of these residential wells have been tested on multiple occasions (Table 6.1.2-5). The results from the groundwater sampling of these residential wells indicate that VOCs have not been detected in any of these residential wells.

The overall impacts to the lower sand and Silurian dolomite aquifer from Areas 1 and 2 must be evaluated considering the data developed from investigations to date. The data suggest the following:

- Groundwater monitoring results from investigations at the Lockformer site in the lower sand and Silurian dolomite indicate no verifiable detection of any constituent of concern attributable to the Lockformer site.
- Groundwater flow in the Silurian dolomite in Areas 1 and 2 is directly to the southeast.
- Residential wells directly downgradient of Areas 1 and 2 along Chicago and Elm Streets have been tested on multiple occasions and have been determined to not be impacted by any constituents of concern attributable to the Lockformer site.

A review of these facts results in the conclusion that the lower sand and Silurian dolomite aquifer in Areas 1 and 2 have not been impacted by the spills in the vicinity of the former TCE fill pipe or other operations the facility, to date.

6.2 AREA 3 INVESTIGATION SUMMARY

6.2.1 Area 3 Soil Investigations

The Area 3 soil investigations have primarily involved sampling along the drainage ways and the sanitary sewer system. Table 6.2.1-1 summarizes data from these 1500-series soil borings performed in Area 3. Figure 6.2.1-1 summarizes data collected in the 1500-series soil borings in Area 3.

Soil investigations in Area 3 were initiated because of groundwater results from monitoring well MW-1113S. Those results will be discussed later in Section 6.2.2. The groundwater results from monitoring well MW-1113S indicated a shallow local source of contamination. As a result, an investigation was undertaken to determine the location and nature of that source of contamination. Originally, it was suspected that the shallow

source of contamination could have come from the north-south drainage way along the east side of Areas 2 and 3. Up until some time in the early 1980s, the storm water from around the Lockformer facility building discharged through a headwall onto the ground surface at approximately the location of boring CSB-1503 on Figure 6.2.1-1. This headwall was removed in the early 1980s and piped to the south to the east-west storm sewer line shown in Figure 6.2.1-1. It was suspected that spills originating in the vicinity of the former TCE fill pipe or from inside the Lockformer facility building could have found their way into the storm sewer system and been discharged to this drainage way through the headwall discharge point. A letter work plan was submitted to IEPA personnel outlining the investigations that would take place to identify the source of the shallow contamination in the area. The letter work plan called for a soil grid sampling system to be employed north and east of MW-1113S.

The grid sampling soil investigations along the drainage way were initiated just north of the suspected headwall discharge point and proceeded to the south on 25-foot grid sampling points. Sampling along the surface drainage way on the east side of Areas 2 and 3 was performed to a point approximately 400 feet south of the starting point at the south end of the parking lot. Samples were analyzed in the field by mobile laboratory utilizing a gas chromatograph and SW-846 method 5021 to develop real time data in the field and guide the investigations to the extent possible. The first row of borings along the drainage way failed to detect any constituents of concern. Per the work plan, the next grid of soil samples was started 25 feet to the west of the first line of samples. At this point, soil samples collected at boring CSB-1529 were determined to exhibit impacts of TCE releases. It was surmised that the likely source of this contamination was leaks associated with the sanitary sewer running directly adjacent to these borings.

When samples from borings CSB-1527, CSB-1528, CSB-1542, CSB-1543, and CSB-1545 indicated no contamination existed in those soils, the sanitary sewer was suspected of having isolated leaks. As a result, soil and groundwater sampling was

performed in a north-south line along the Lockformer sanitary sewer line to the south of this area and resulted in borings CSB-1546 through CSB-1557. When the Lisle sanitary sewer line at the south end of Area 3 was encountered, sampling was performed along this sanitary sewer line in an east-to-west fashion that resulted in borings CSB-1558 through CSB-1570. Some soil samples analyzed by the mobile laboratory gas chromatograph were also submitted for fixed laboratory analyses as a check on the mobile lab data.

A review of the soil sampling data in Figure 6.2.1-1 indicates that releases have occurred along the Lockformer and Lisle sanitary sewer line. Even though further investigation is merited, it appears the groundwater contamination occurrence in the vicinity of MW-1113S was from a rather isolated release from the Lockformer sanitary sewer. The contamination in monitoring well MW-113S and the soil contamination determined to be present in the vicinity of the well indicates the release of TCE only.

Sample results from borings along the Lisle sanitary sewer line at the south end of Area 3 indicate releases from the sanitary sewer line have occurred. The sanitary sewer line at the south end of Area 3 is buried at a depth of approximately 16 feet throughout this area, and the water table occurs at approximately 26 feet in depth. The soil sample results from borings along the sewer line are consistent with releases occurring from the Lisle sanitary sewer with vertical migration to the water table. Soil samples exhibiting contamination at depths less than 16 feet and along the south end of the Lockformer sanitary sewer (CSB-1556 and CSB-1557) are likely to be attributable to vapor phase migration through the mass waste unit sediments.

The seemingly large variation in soil sample results between the mobile gas chromatograph analyses and the fixed laboratory analyses is likely due to sample preparation and analytical methods associated with SW-846 method 5021 used by the mobile gas chromatograph. The fixed laboratory analysis results suggest that the

method 5021 soil analyses overestimated the concentrations of TCE and PCE determined in the soil samples. The correlation between the mobile lab gas chromatograph groundwater analyses and the fixed lab groundwater results appears to have been better.

The soil contamination along the Lisle sanitary sewer at the south end of Area 3 exhibits elevated concentrations of PCE along with TCE and, in this way, appears to differ from the sanitary sewer line leaks in the vicinity of monitoring well MW-1113S. The TCE and PCE chemical signature along the Lisle sanitary sewer line appears similar to the TCE/PCE signature in soils around the former vapor degreaser in the facility building. No TCA was determined to be present in any soil sample from sewer investigations in Area 3.

The highest concentrations of TCE and PCE determined in soil along the Lisle sanitary sewer are associated with boring CSB-1562. This sample location is very close to the sanitary sewer manhole that serves as the junction point for the Lockformer and Lisle sewers. The contamination in the vicinity of MW-1113S is also next to a manhole along the Lockformer sanitary sewer line. This seeming correlation appears to exist up in Area 2 as well. Here, the elevated concentrations of TCE at approximately 15 to 20 feet in depth in the fill/till (Figure 6.1.1-5D), which appear to be isolated from the contamination occurrence in the former TCE fill pipe area, are also associated with a manhole installed along the Lockformer sanitary sewer line (Figure 6.1.1-4).

6.2.2 Area 3 Groundwater Investigations

The Area 3 groundwater investigations have been primarily focused along the drainage ways and the sanitary sewer system. Table 6.2.2-1 provides a summary of laboratory analytical results for groundwater samples collected in Area 3. Figure 6.2.2-1 provides a summary of the groundwater sampling results from monitoring wells, and the locations of groundwater grab sample results from the 1500-series soil borings in Area 3. The

groundwater analyses provided by the mobile gas chromatograph appears to more closely match the results of the fixed laboratory analyses. However, only a limited data set is available for analysis.

Sample results from the single packer tests performed during the drilling of the MW-1113D bedrock well are tabulated and appear in Table 6.1.2-2. Sample results from double packer tests performed on bedrock monitoring well MW-1113D appear in Table 6.1.2-3. Water level measurements acquired from monitoring wells completed in the glacial sediments and bedrock appear in Table 2.4.8-1.

The summary of groundwater analytical data appearing in Figure 6.2.2-1 indicates a line source of soil contamination under the Lisle sanitary sewer line has impacted groundwater in the shallow glacial sediments at the south end of Area 3. The distribution of groundwater analytical data in Figure 6.2.2-1 suggests the extent of groundwater contamination on the east side of the Site is reasonably well defined. Monitoring well MW-1116, which exhibited a TCE concentration of 21.7 µg/L, is installed approximately 45 feet from the east property boundary. The groundwater grab sample from the boring adjacent to MW-1116 exhibited a TCE concentration of 18 µg/L. The groundwater grab sample acquired at boring CSB-1558 exhibited a TCE concentration of 9 µg/L, approximately 15 feet away from the east Site boundary.

The extent of the line source of contamination to the west of the Lockformer property boundary is less certain, as monitoring well MW-1115 exhibited a TCE concentration of 91.3 µg/L. This is not unexpected – as the sewer system discharges east to west. However, after exiting the west side of the Lockformer site, the Lisle sanitary line runs to the west property boundary of the Ogden Corporate Center property and then runs north toward Ogden Avenue. As a result, the line source in terms of groundwater flow would appear to be limited in the western extent to approximately another 290 feet in width.

The groundwater contamination occurring under the Lisle sanitary sewer line has been investigated only to the depth of the shallow water table that occurs in the mass waste unit sediments. The concentrations of TCE in groundwater determined in this interval by groundwater grab samples and in monitoring wells ranges from 9 to 232 µg/L. The concentrations of PCE determined to be present in groundwater range from non-detect to 24.2 µg/L. These concentrations are inconsistent with concentrations that might be expected if DNAPL were present in these shallow water table sediments because of leaks from the sanitary sewer.

Table 6.1.2-4 provides a summary of the general chemistry parameter results from monitoring wells that are indicative of natural attenuation in groundwater. These analyses generally indicate reducing conditions in the mass waste unit groundwater of Areas 1 and 2. However, groundwater samples in monitoring wells MW-1113S, MW-1115 and MW-1116 indicate aerobic conditions. This is likely to be the result of the mass waste unit outcropping at surface grade over much of the area around the storm water retention basin in Area 3 due to the topographic slope at the site. Monitoring wells MW-1115 and MW-1116 located along the sewer line at the south end of Area 3 exhibit elevated concentrations of total organic carbon and nitrate. The elevated concentrations of total organic carbon and nitrate observed are likely to be attributable to leakage from the Lisle sanitary sewer system at the south end of Area 3.

Similar calculations to those discussed in Section 6.1.2 are available to estimate the TCE migration velocity in the mass waste unit in Area 3. Since the known contaminated groundwater in Area 3 occurs in the mass waste sediments, similar calculations as previously applied for estimating the retardation factor for TCE are appropriate. Applying a retardation rate of three as was previously calculated, the previous estimate of groundwater seepage velocities in the mass waste unit in Area 3 (Section 2.4.8.1) suggests that the TCE migration could be expected to range from approximately 1 to 22 feet per year. These estimated ranges are not valid for the seepage velocities or

migration rates of TCE in the alluvial sequence south of Area 3 or in the Silurian dolomite aquifer.

The limited amount of characterization data collected to date in Area 3 makes it difficult to estimate the extent of contamination from the sanitary sewer system leaks. However, if it is assumed that the TCE contamination has been released over time to the mass waste sediments at similar concentrations to those currently observed (continuous source concentration), the maximum range of TCE transport away from the sanitary sewer line in the mass waste sediments can be estimated. To make this estimate, it is necessary to define the time over which the contaminant transport occurred. The historic groundwater flow data for the Lisle area discussed in Section 2.4.3 suggests that, up until April 1992, groundwater flowed to the west. As discussed previously in this report, the Silurian dolomite aquifer appears to be in direct hydraulic connection with portions of the alluvial sequence associated with St. Joseph Creek, and could be expected to react hydraulically in a similar manner.

Preliminary solute transport analysis can be undertaken if some simplifying assumptions are made. Some of these simplifying assumptions include:

- Contaminated groundwater was available to migrate to the south-southeast in the mass waste unit for nine years after the local production wells ceased operation and Lake Michigan water was supplied to the area.
- The maximum TCE migration rate through the saturated mass waste unit sediments of 22 feet per year is assumed.
- A reasonable value of dispersion is utilized.
- No biodegradation of the TCE is assumed.

Given these assumptions, a preliminary estimate suggests it is reasonable for TCE concentrations above the Class I criteria to have migrated up to 400 feet from the sewer line in the mass waste unit. This estimate considers only TCE migration in the saturated

sediments of the mass waste unit. This estimate does not take into consideration the variability of contaminant transport in the St. Joseph Creek alluvial sequence or the Silurian dolomite.

Groundwater monitoring data for monitoring wells MW-1113M and MW-1113D indicate that groundwater in the lower sand and Silurian dolomite aquifer in Area 3 has not been impacted by releases from Areas 1 and 2. Little other data is available for the Silurian dolomite aquifer in Area 3. However, some data are available for the Silurian dolomite aquifer in the Front Street subdivision south of Area 3. Figure 6.2.2-2 illustrates the Front Street subdivision residential well sampling results, and the penetration depth of residential wells into the Silurian dolomite from boring logs obtained from the ISWS.

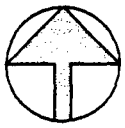
Even though limited residential well construction data are available for the homes in the Front Street subdivision, there appears to be a correlation between the depth of penetration into the Silurian dolomite by the wells in the northern portion of the subdivision and the concentration of TCE determined to be present in those wells. The well water at 612 Front Street was analyzed and determined to be non-detect for the constituents of concern. The well at 612 Front Street penetrates 80 feet into the Silurian dolomite. The well across the street and two parcels to the west at 633 Front Street was tested and determined to contain 8.3 and 8.64 µg/L on the two occasions it was analyzed. This well at 633 Front Street penetrates only 12 feet into the Silurian dolomite. The two home parcels to the west of 633 Front Street at 649 Front Street were determined to be non-detect for TCE when analyzed. The well at 649 Front Street penetrates 69 feet into the Silurian dolomite. For three parcels to the west of 649 Front Street at 717 Front Street, laboratory analysis determined a TCE concentration of 0.57 µg/L in the well water. The well at 717 Front Street penetrates 20 feet into the Silurian dolomite. These data are consistent with the contamination from a shallow source in close proximity to the northern portion of the Front Street subdivision.

An inconsistency in the Front Street subdivision data that cannot be explained currently is the occurrence of TCA at the north end of the subdivision. No soil or groundwater transport data has been developed on the Lockformer site that would explain this TCA occurrence. Likewise; the most elevated occurrence of PCE in the Front Street subdivision occurring in at the northeast corner of the subdivision in a relatively deep well (73-foot penetration into the dolomite), and associated with TCA occurrences there, is also inexplicable. Given the propensity of TCA to degrade under either aerobic and anaerobic conditions in groundwater a substantial source area may be suggested. This data could be indicative of other contributions to the Front Street subdivision wells.

The correlation between the well depth of penetration into the Silurian dolomite and concentration of TCE in the well does not appear to be as strong at the southern end of the Front Street subdivision. A review of cross-section A-D in Figure 2.4.7-6 and cross-section F-F' in Figure 2.4.7-7 may provide some explanation for this. Coarse-grained, unconsolidated, saturated glacial sediments are shown to be in direct contact with the upper weathered Silurian dolomite on the north end of the Front subdivision and on the west side of the Ellsworth Industrial District in both cross-sections. However; toward the south of the Front Street subdivision and on the west side of the Ellsworth Industrial District, these saturated, coarse-grained glacial sediments pinch out, and the entirety of the glacial section above bedrock is composed on low permeability silty clay glacial till. These hydrostratigraphic data suggest that more flow must occur in the bedrock sequence at the southern end of the Front Street subdivision to provide the appropriate conservation of mass with respect to the groundwater flow.

SECTION 6.0

FIGURES



FACTORY PLAN

SCALE 1/16" = 1'-0"

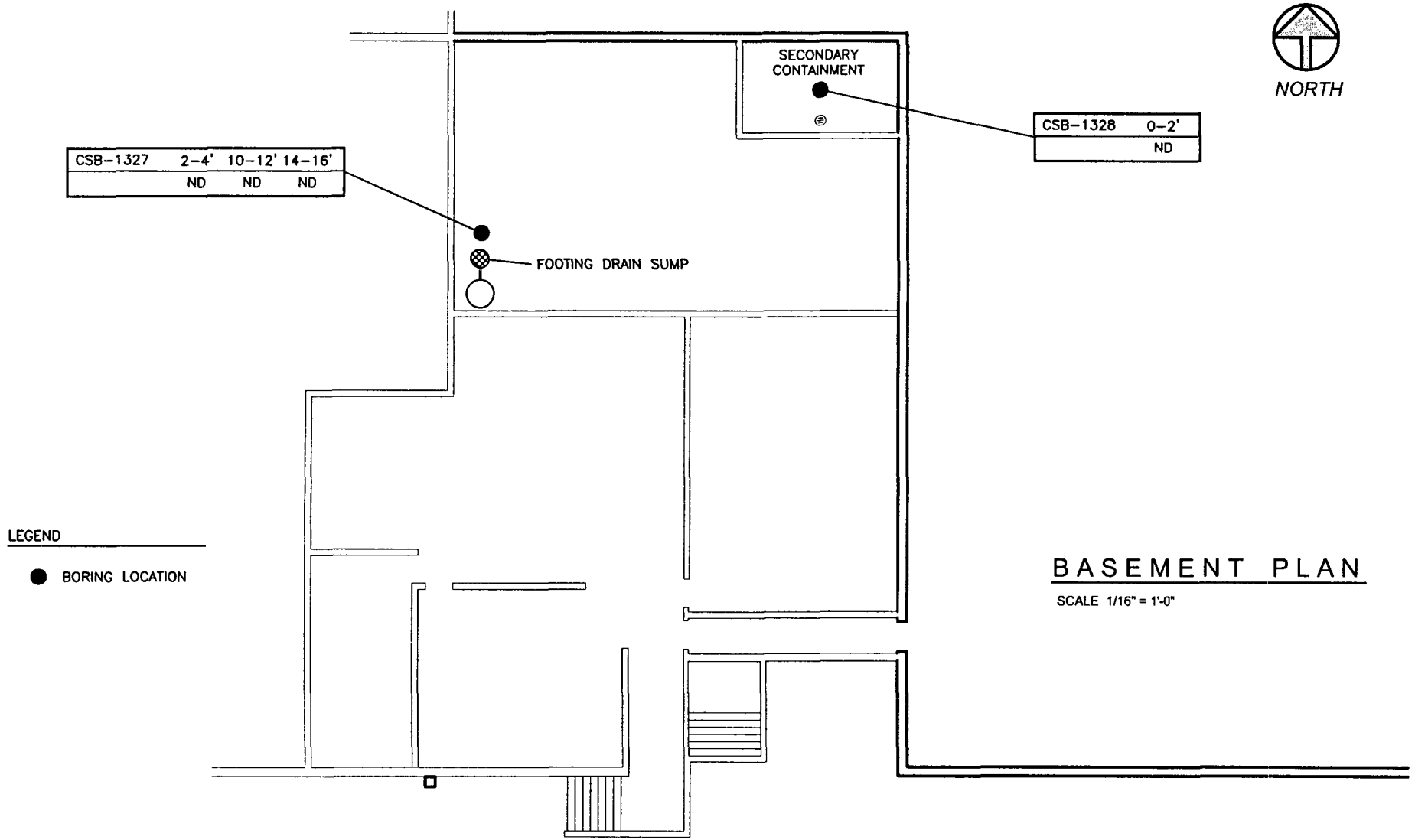
: THIS DRAWING IS A REDRAWN DUPLICATE OF THE BADLY DAMAGED ONLY EXISTING AS-BUILT OF DRAWING P-3 DWG. MARCH 20, 2001

INVESTIGATION RESULTS AROUND THE FORMER TCE DEGREASER, SANITARY STORM SEWER LINES AND ASSOCIATED FLOOR DRAINS, AND THE SOUTH EXTERIOR DOOR

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

FIGURE

6.1.1-1



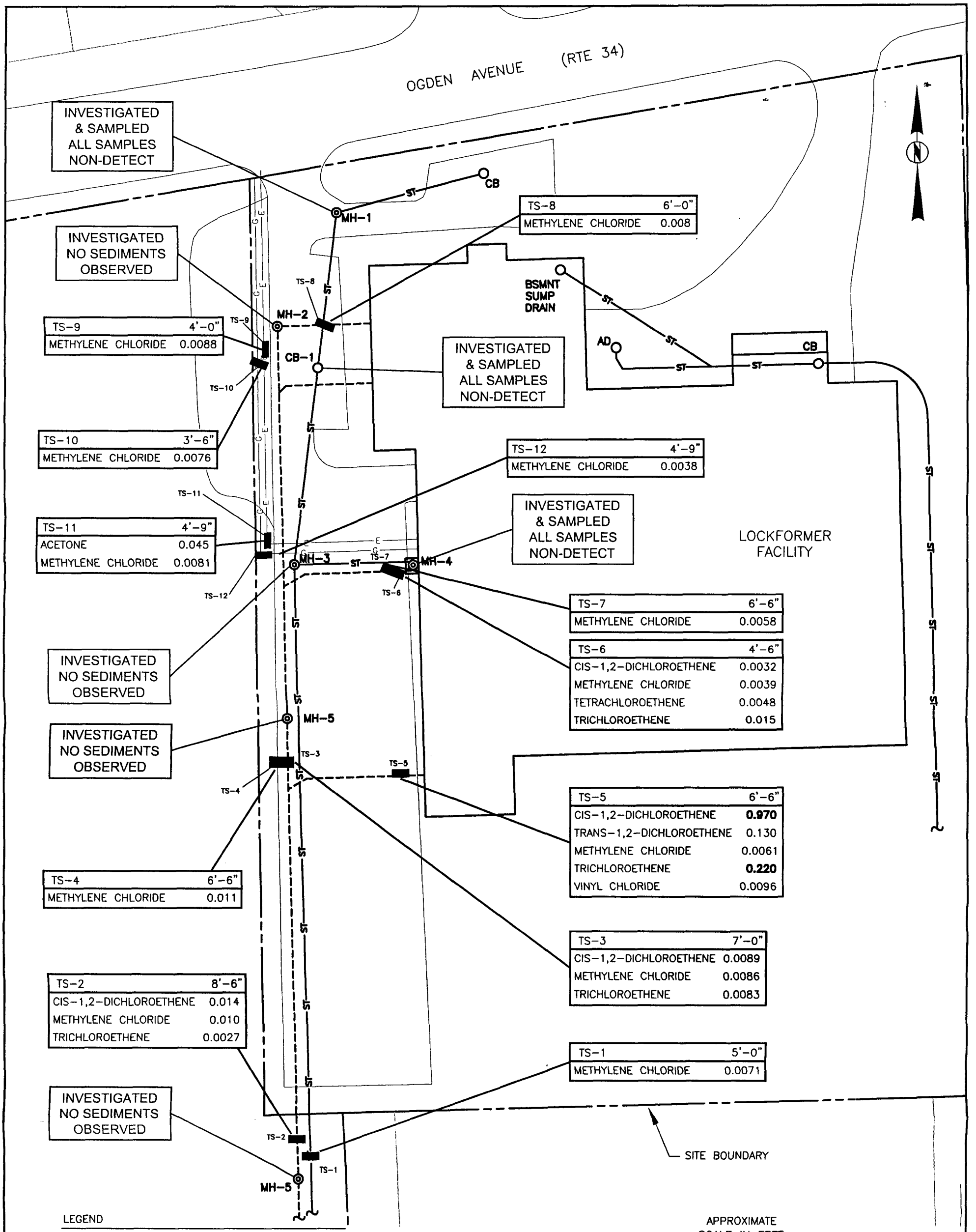
CHK BY	
DWN BY	BCP
DATE	12-12-01
SCALE	AS SHOWN
CAD NO.	6526303i
PRJ NO.	65263.01

BUILDING BASEMENT
SUMP SAMPLING RESULTS

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE
6.1.1-2



NOTE: ALL RESULTS SHOWN IN mg/kg.

NOTE:
FACILITY LAYOUT AND TRENCH LOCATIONS BASED ON CARLSON ENVIRONMENTAL, INC.'S TRENCH SAMPLE LOCATION MAP.

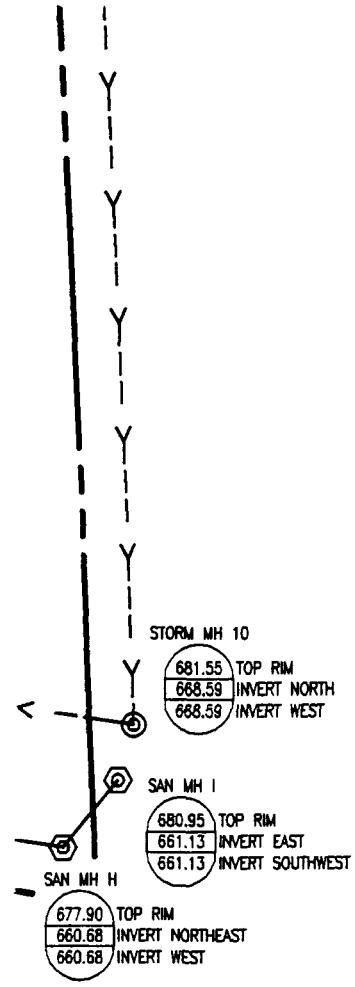
CHECK BY	
DRAWN BY	BCP
DATE	12-12-01
SCALE	AS SHOWN
CAD NO.	6526302T
PRJ NO.	65263.01

STORM AND SANITARY SEWER SAMPLING
LOCATIONS AND RESULTS

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES
3140 FINLEY ROAD, DOWNERS GROVE, IL 60515

FIGURE 6.1.1-3



BENCHMARK:

SOURCE BENCHMARK:
LISLE 4, A BERNTSEN MONUMENT DISK SET AT THE NORTHWEST CORNER OF THE INTERSECTION OF KINGSTON AVENUE AND DIVISION STREETS IN DOWNERS GROVE, ILLINOIS

ELEVATION=720.38

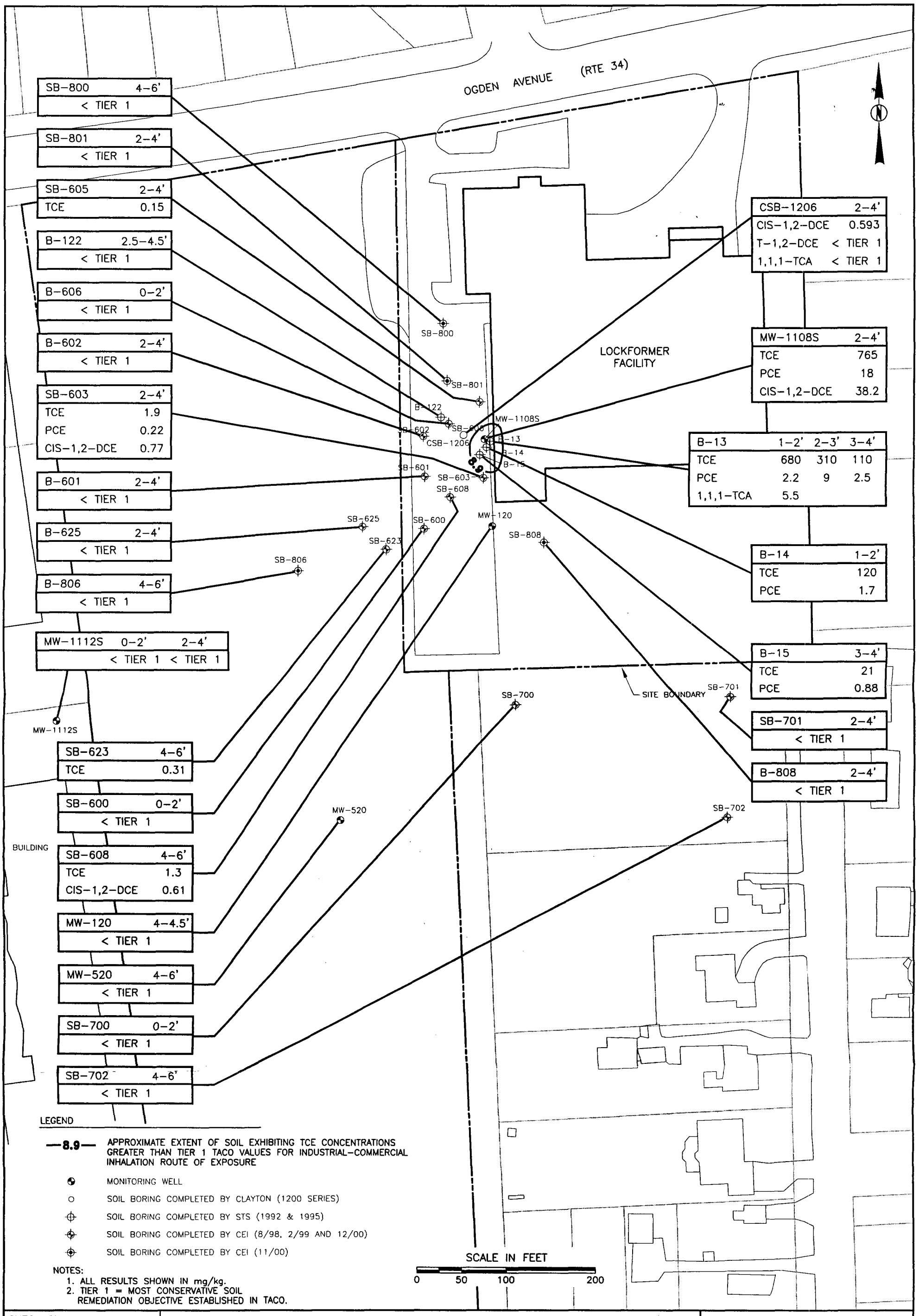
SITE BENCHMARK:
IRON PIPE CONTROL POINT NUMBER 9003 SET AT THE NORTH CENTER POINT OF THE LOCKFORMER PROPERTY ALONG OGDEN AVENUE.

ELEVATION=715.14

MOST RECENT TOPOGRAPHIC FIELD WORK COMPLETED ON NOVEMBER 30, 2001

NOTE: SURVEYED LOCATIONS OF SANITARY AND STORM SEWER LINES AND STRUCTURES WAS CREATED BY MANHARD CONSULTING FOR CLAYTON GROUP SERVICES.

BY	STORM AND SANITARY SEWER ELEVATIONS THE LOCKFORMER COMPANY 711 W. OGDEN AVENUE LISLE, ILLINOIS	Clayton GROUP SERVICES
BY BCP		
5-10-02		
AS SHOWN		FIGURE
65263-08S1		6.1.1-4
65263.01		



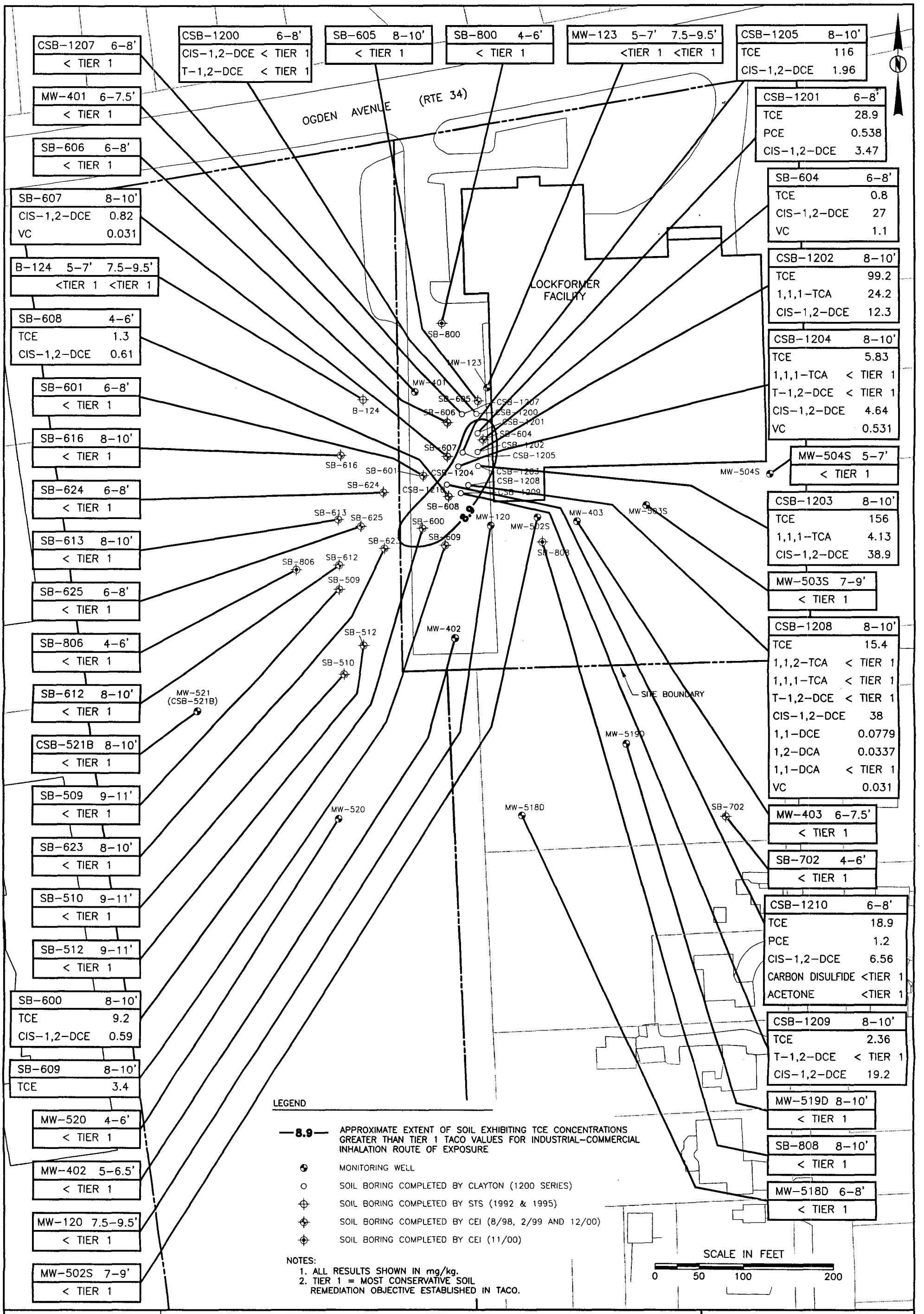
CHECK BY	
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08A
PRJ NO.	65263.01

SOIL ANALYTICAL RESULTS IN THE FILL/TILL
AT THE 0-5' DEPTH INTERVAL

LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE 6.1.1-5A



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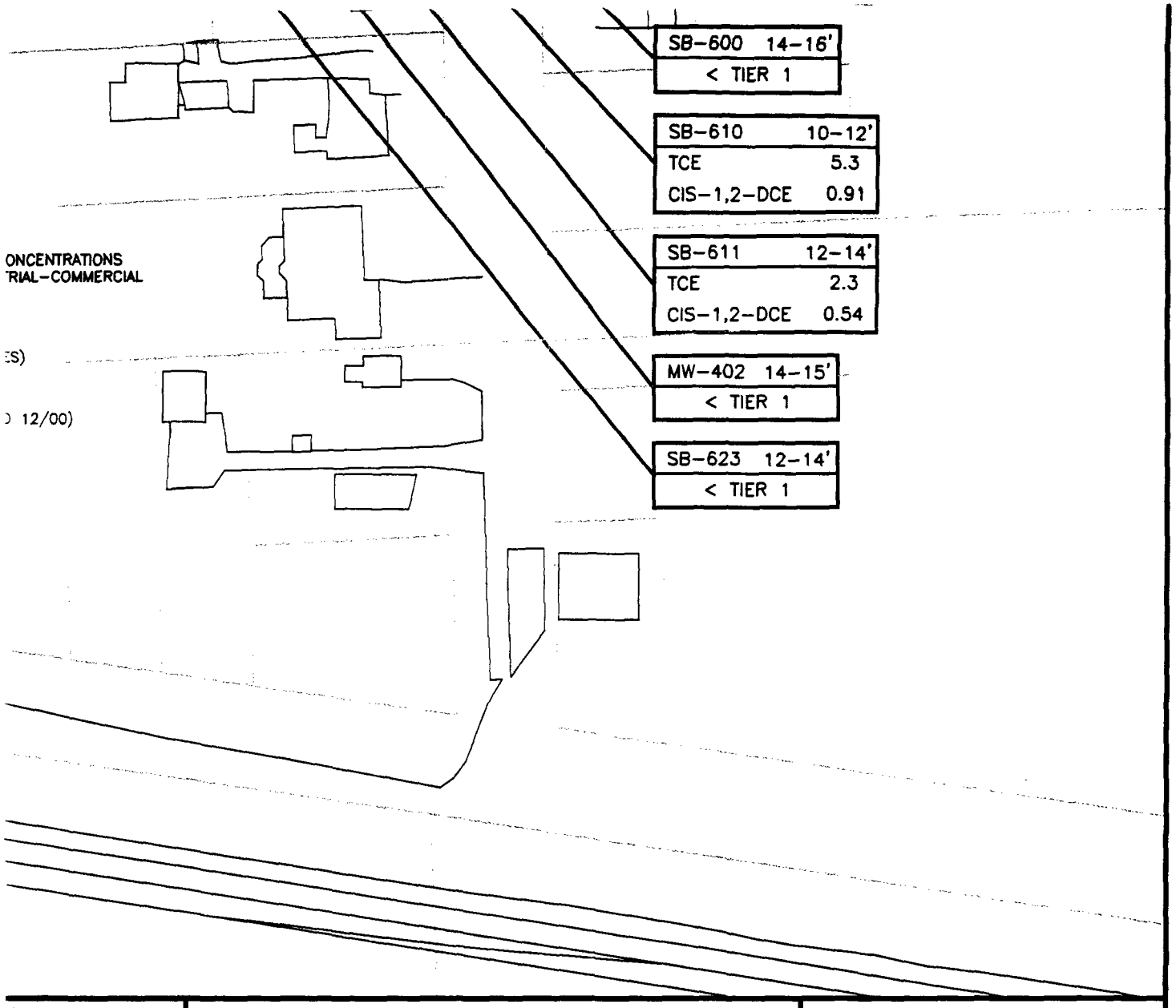
PRJ NO.	65263.01

SOIL ANALYTICAL RESULTS IN THE FILL/TILL
AT THE 5-10' DEPTH INTERVAL

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE 6.1.1-5B



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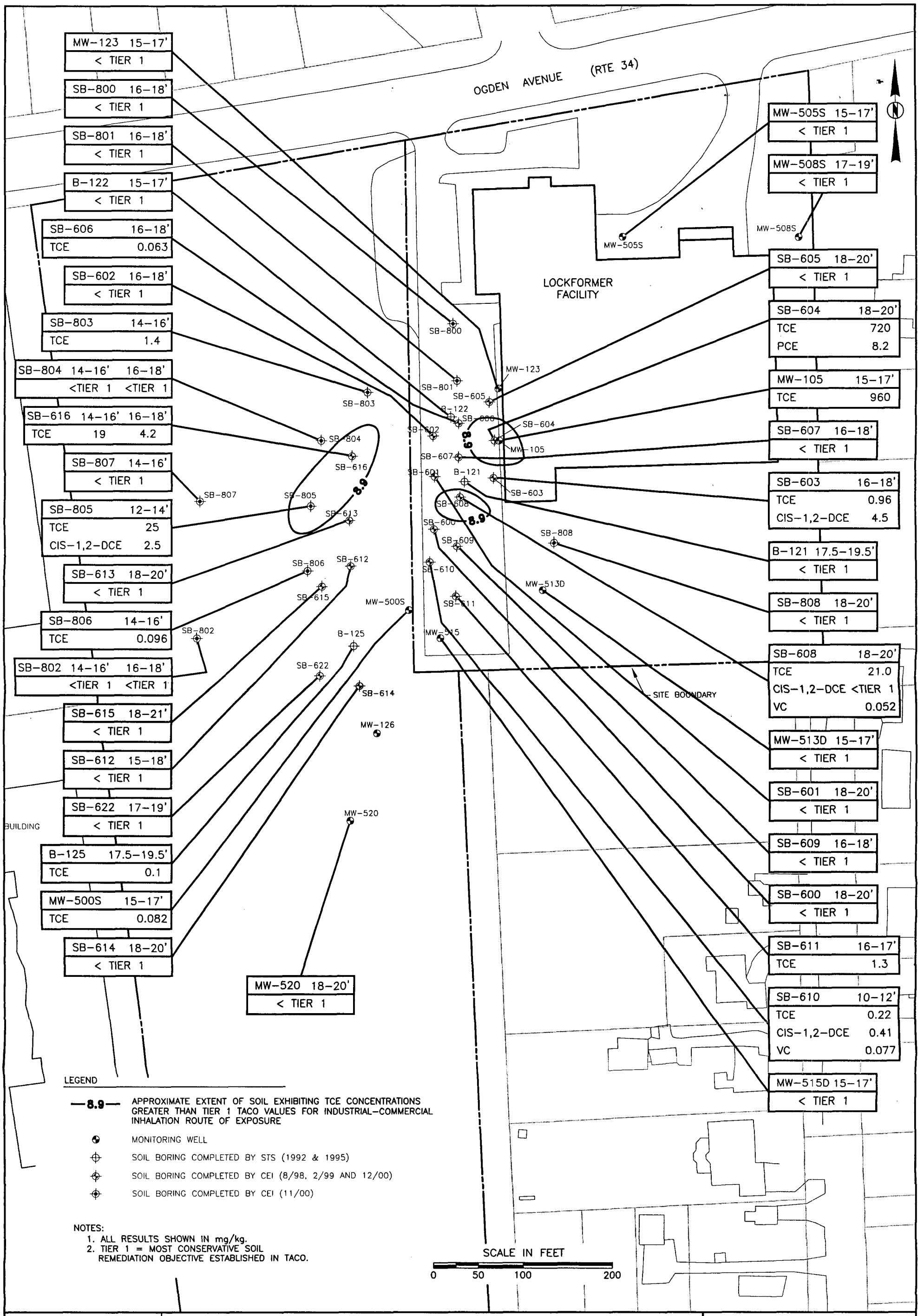
5-10-02	
AS SHOWN	
65263-08C	
65263.01	

SOIL ANALYTICAL RESULTS IN THE FILL/TILL
AT THE 10-15' DEPTH INTERVAL

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton
GROUP SERVICES

FIGURE
6.1.1-5C



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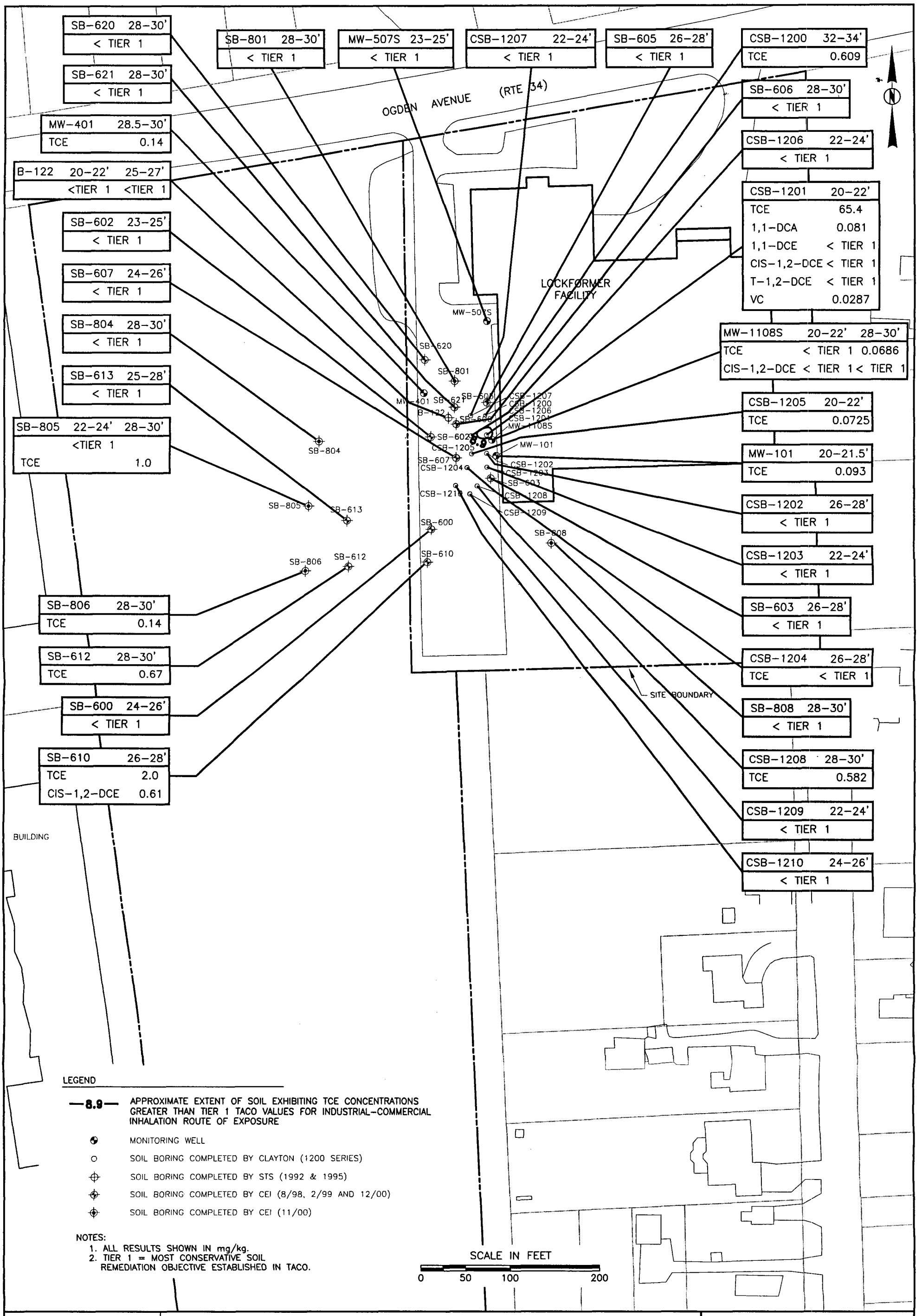
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08D
PRJ NO.	65263.01

SOIL ANALYTICAL RESULTS IN THE FILL/TILL
AT THE 15-20' DEPTH INTERVAL

LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE 6.1.1-5D



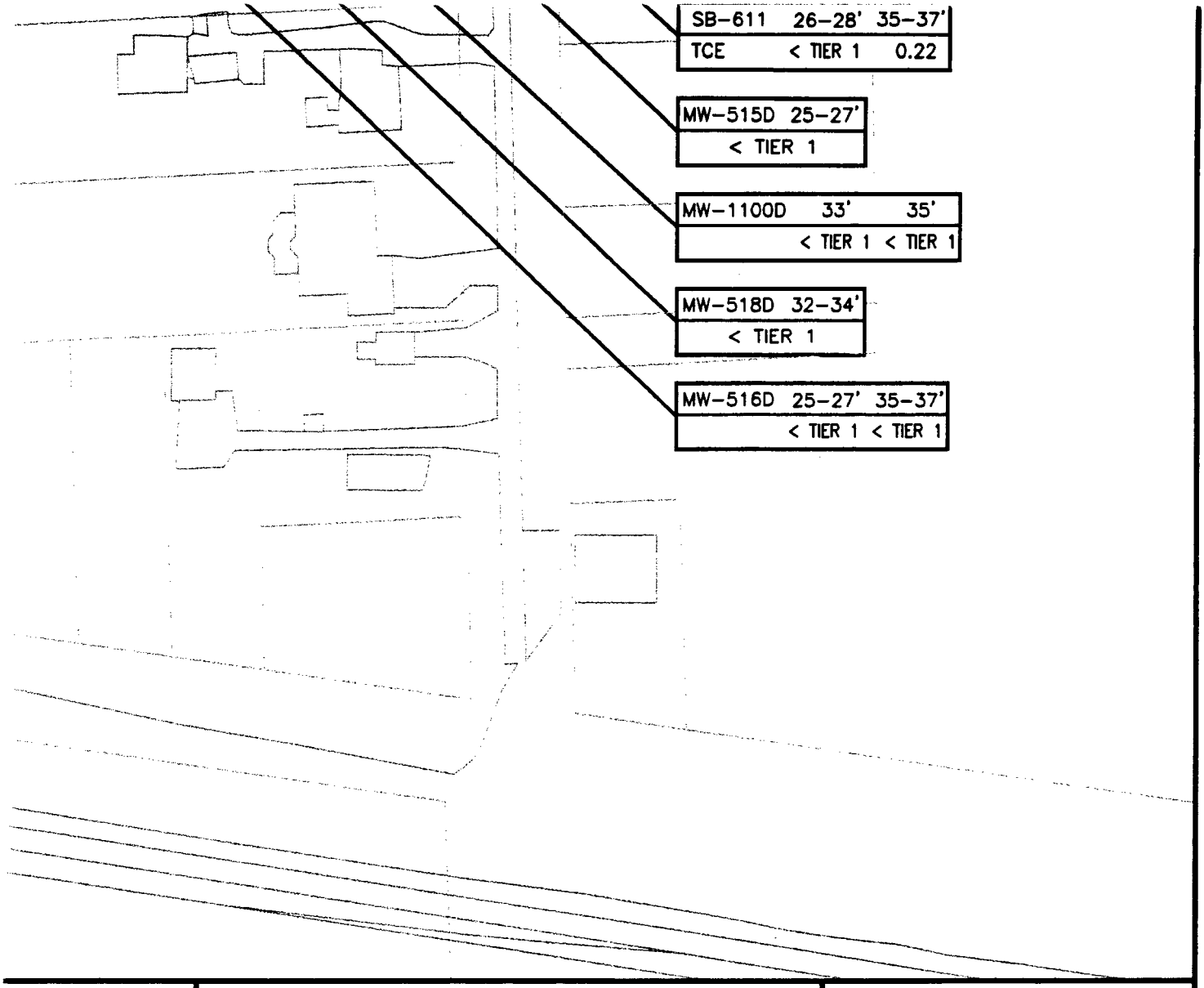
CHECK BY	
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08E
PRJ NO.	65263.01

SOIL ANALYTICAL RESULTS IN THE FILL/TILL
AT THE 20-34' DEPTH INTERVAL

LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE 6.1.1-5E



3Y	
3Y BCP	
5-10-02	
AS SHOWN	
65263-08F	
65263.01	

SOIL ANALYTICAL RESULTS
FOR THE MASS WASTE UNIT

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton
GROUP SERVICES

FIGURE
6.1.1-5F

CSB-1206	48–50'	52–54'
TCE	< TIER 1	< TIER 1
PCE	< TIER 1	

MW-401	53.5–55'
	< TIER 1

CSB-1205	46–48'	50–52'
TCE	0.624	< TIER 1
PCE	< TIER 1	

SB-602	45–47'
TCE	13.0

CSB-1204	50–52'	53'	56–58'
TCE	< TIER 1	< TIER 1	< TIER 1

B-121	45–47'	50–52'	55–57'
TCE	< TIER 1	< TIER 1	< TIER 1

CSB-1210	48–50'	54–56'	58–60'
TCE	< TIER 1	< TIER 1	< TIER 1

MW-1114D	36–38'
	< TIER 1

SB-807	48–50'
TCE	51.0
CIS-1,2-DCE	27.0

MW-522	38–40'	48–50'	55–57'
TCE	< TIER 1	0.81	< TIER 1

SB-805	46–48'
TCE	22.0
CIS-1,2-DCE	26.0

SB-612	47–49'
	< TIER 1

SB-609	43–45'
	< TIER 1

MW-517	55–57'
	< TIER 1

SB-611	42–44'
	< TIER 1

SB-614	44–46'
	< TIER 1

MW-515D	35–37'
TCE	0.7

MW-520	63–65'
	< TIER 1

CSB-1207	50–52'	58–60'
TCE	0.115	< TIER 1

CSB-1201	56–58'
TCE	< TIER 1
PCE	< TIER 1

SB-605	52–54'
	< TIER 1

CSB-1200	48–50'
TCE	2.14
PCE	< TIER 1
1,1,1-TCA	< TIER 1

MW-1108S	48–50'	56–58'	64–66'
TCE	< TIER 1	< TIER 1	< TIER 1
PCE	< TIER 1		

MW-508D	60–62'
	< TIER 1

CSB-1202	48–50'	50–52'	56–58'
TCE	0.79	< TIER 1	0.472

CSB-1203	48–50'
	< TIER 1

CSB-1208	44–46'	48–50'	52–54'	62–64'
TCE	0.911	< TIER 1	< TIER 1	< TIER 1

MW-504D	58–60'
	< TIER 1

MW-403	58.5–60'
	< TIER 1

CSB-1209	46–48'	52–54'
TCE	< TIER 1	< TIER 1

MW-120	45–47'	47–49'	55.5–57.5'
	< TIER 1	< TIER 1	< TIER 1

MW-513D	50–52'
	< TIER 1

MW-514D	45–47'
	< TIER 1

MW-519D	33–35'	50–52'
	< TIER 1	< TIER 1

MW-402	48.5–50'
	< TIER 1

OGDEN AVENUE (RTE 34)

LOCKFORMER FACILITY

BUILDING

BUILDING

SITE BOUNDARY

MW-401 SB-605 CSB-1207 CSB-1200 CSB-1206 SB-602 CSB-1201 MW-1108S CSB-1205 CSB-1202 CSB-1204 CSB-1203 B-121 CSB-1208 CSB-1210 CSB-1209 MW-1114D SB-807 SB-805 MW-522 SB-609 SB-612 MW-517D MW-513D SB-611 MW-402 MW-515 MW-514D SB-614 MW-519D MW-520 MW-504D MW-403 MW-120 MW-508D

LEGEND

- MONITORING WELL
- SOIL BORING COMPLETED BY CLAYTON (1200 SERIES)
- SOIL BORING COMPLETED BY STS (1992 & 1995)
- SOIL BORING COMPLETED BY CEI (8/98, 2/99 AND 12/00)
- SOIL BORING COMPLETED BY CEI (11/00)

NOTES:
1. ALL RESULTS SHOWN IN mg/kg.
2. TIER 1 = MOST CONSERVATIVE SOIL REMEDIATION OBJECTIVE ESTABLISHED IN TACO.

SCALE IN FEET
0 50 100 200

CHECK BY	
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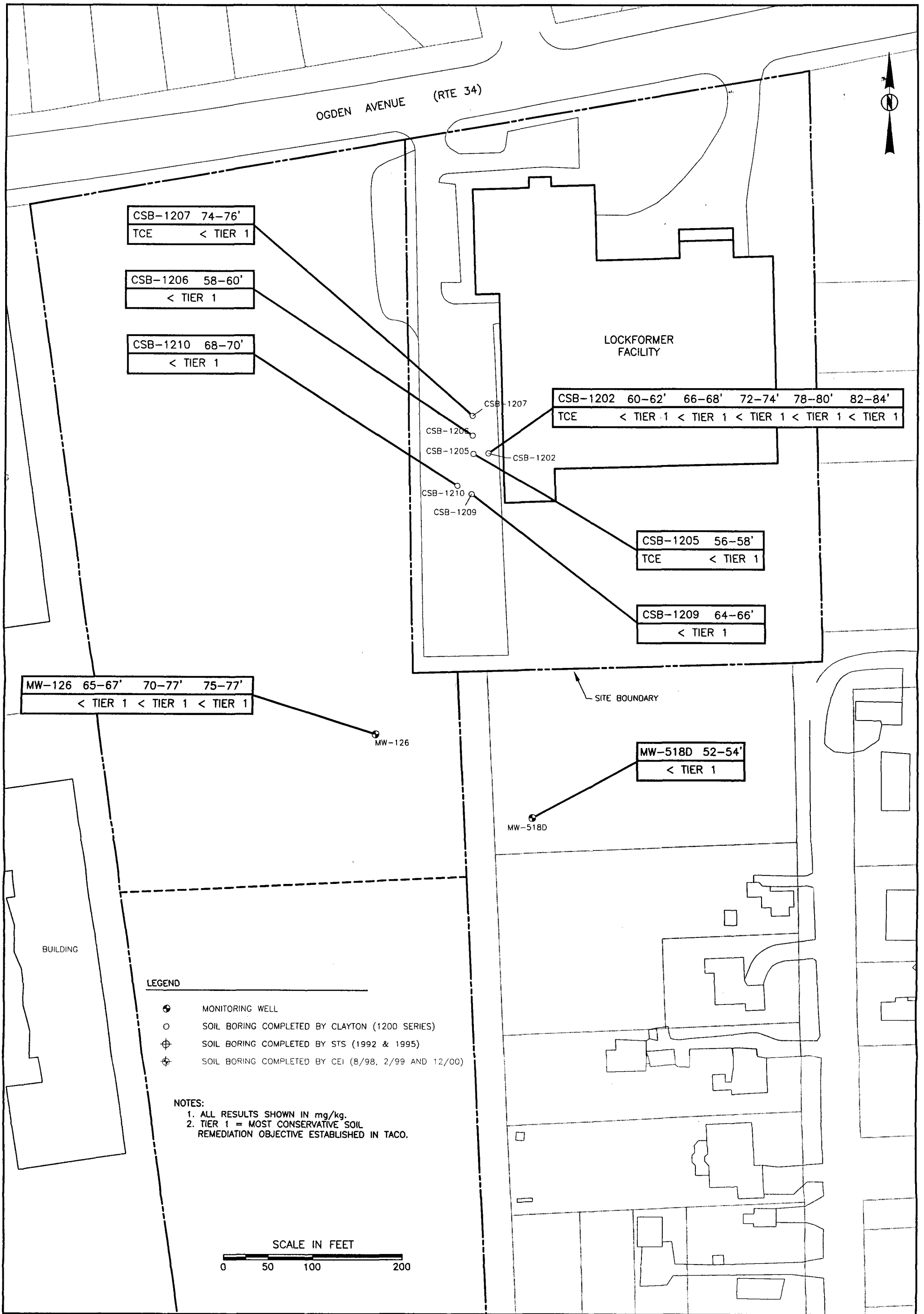
SCALE	AS SHOWN
CAD NO.	65263–08G
PRJ NO.	65263.01

SOIL ANALYTICAL RESULTS
FOR THE LOWER TILL UNIT

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE 6.1.1–5G



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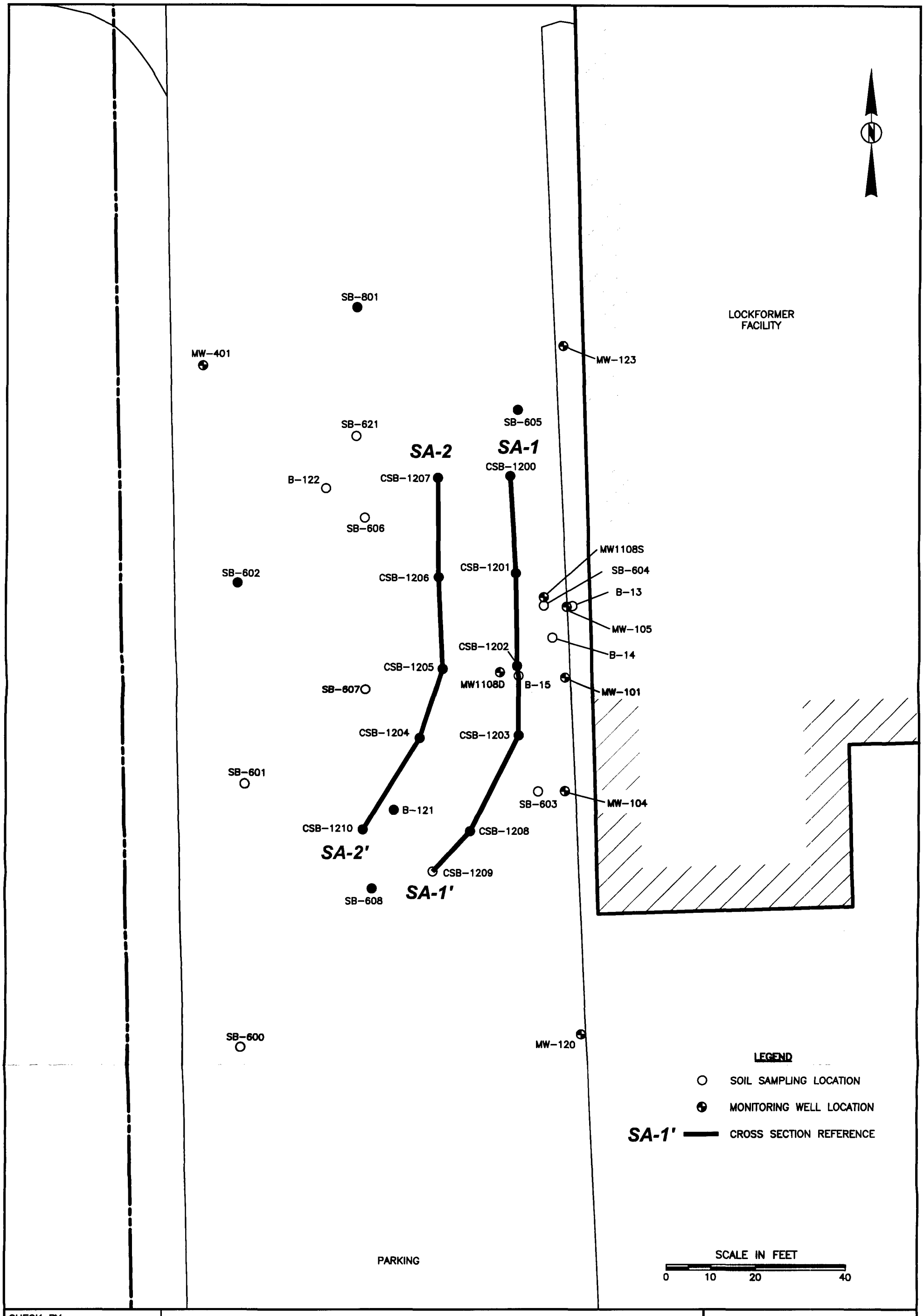
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08H
PRJ NO.	65263.01

SOIL ANALYTICAL RESULTS
FOR THE LOWER SAND AND WEATHERED DOLOMITE

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE 6.1.1-5H



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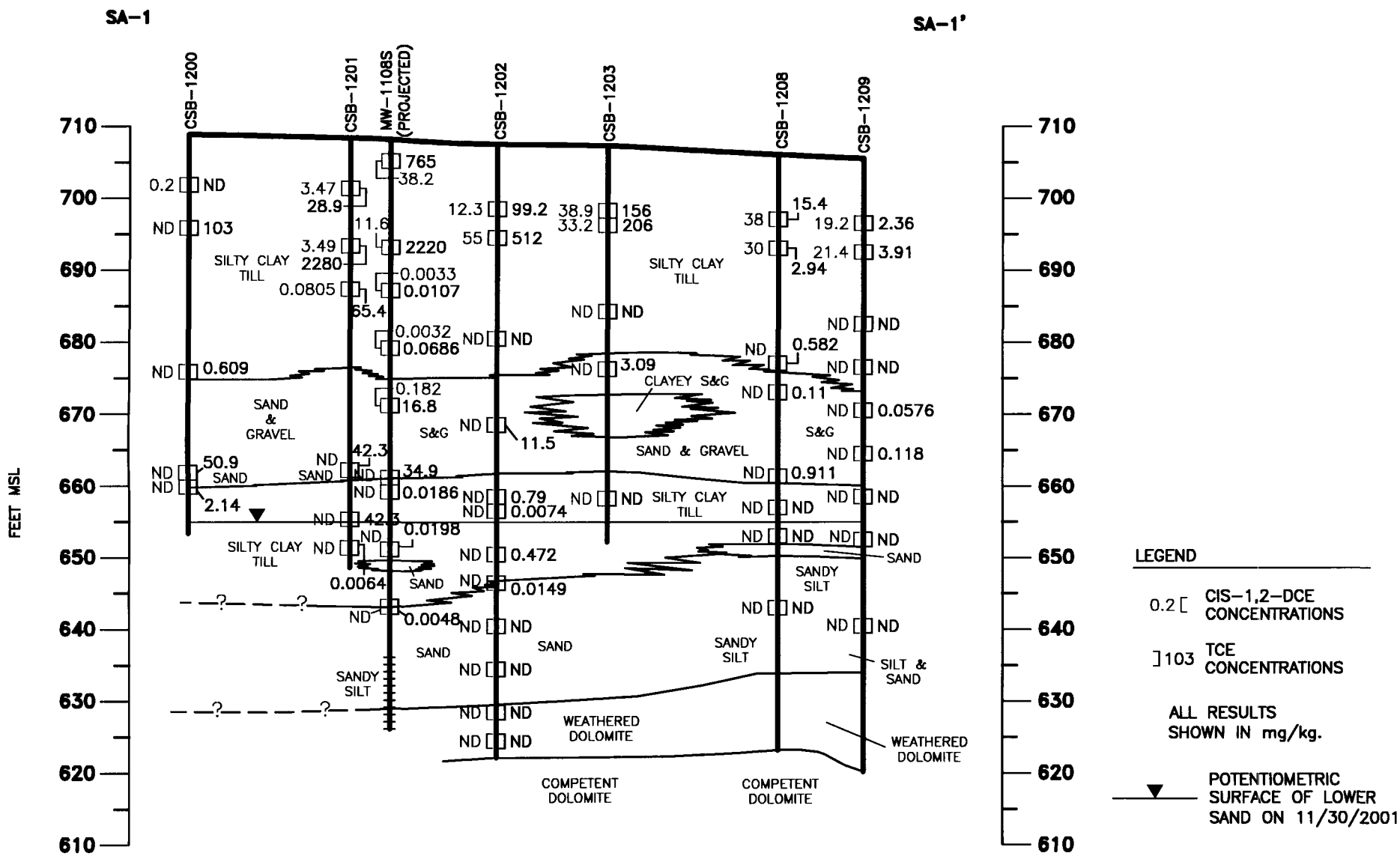
DRAWN BY	BCP
DATE	12-12-01
SCALE	AS SHOWN
CAD NO.	6526302W
PRJ NO.	65263.01

CROSS SECTION LOCATIONS FOR
SA-1/SA-1' AND SA-2/SA-2'

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES
3140 FINLEY ROAD, DOWNERS GROVE, IL 60515

FIGURE 6.1.1-6



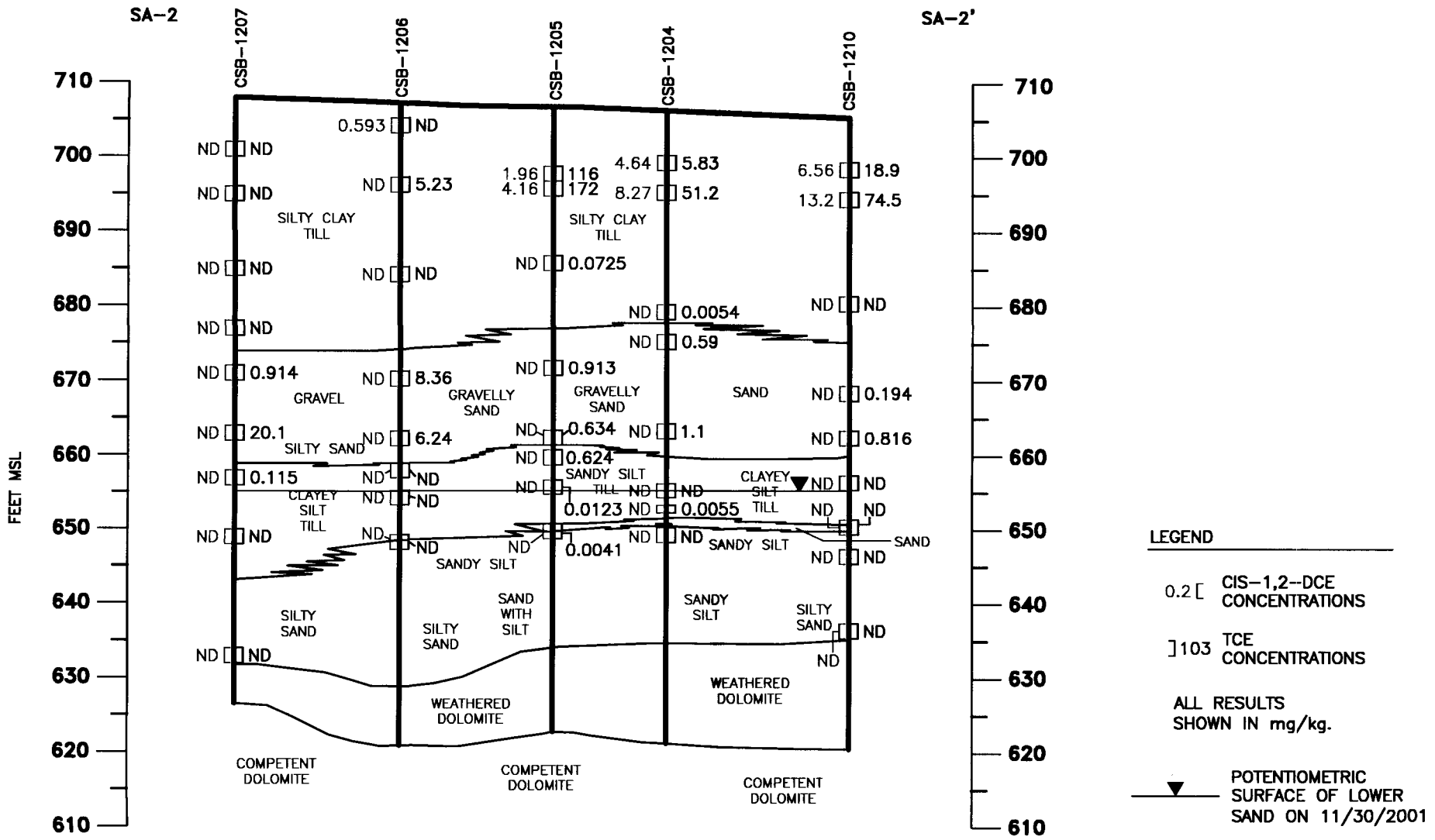
CHK BY	
DWN BY	OS/BCP
DATE	12-12-01
SCALE	AS SHOWN
CAD NO.	6526302u
PRJ NO.	65263.01

CROSS SECTION "SA-1 – SA-1'"
WITH TCE AND CIS-1,2-DCE SAMPLE RESULTS

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE
6.1.1-7



HORIZONTAL SCALE IN FEET

0 10 20 40

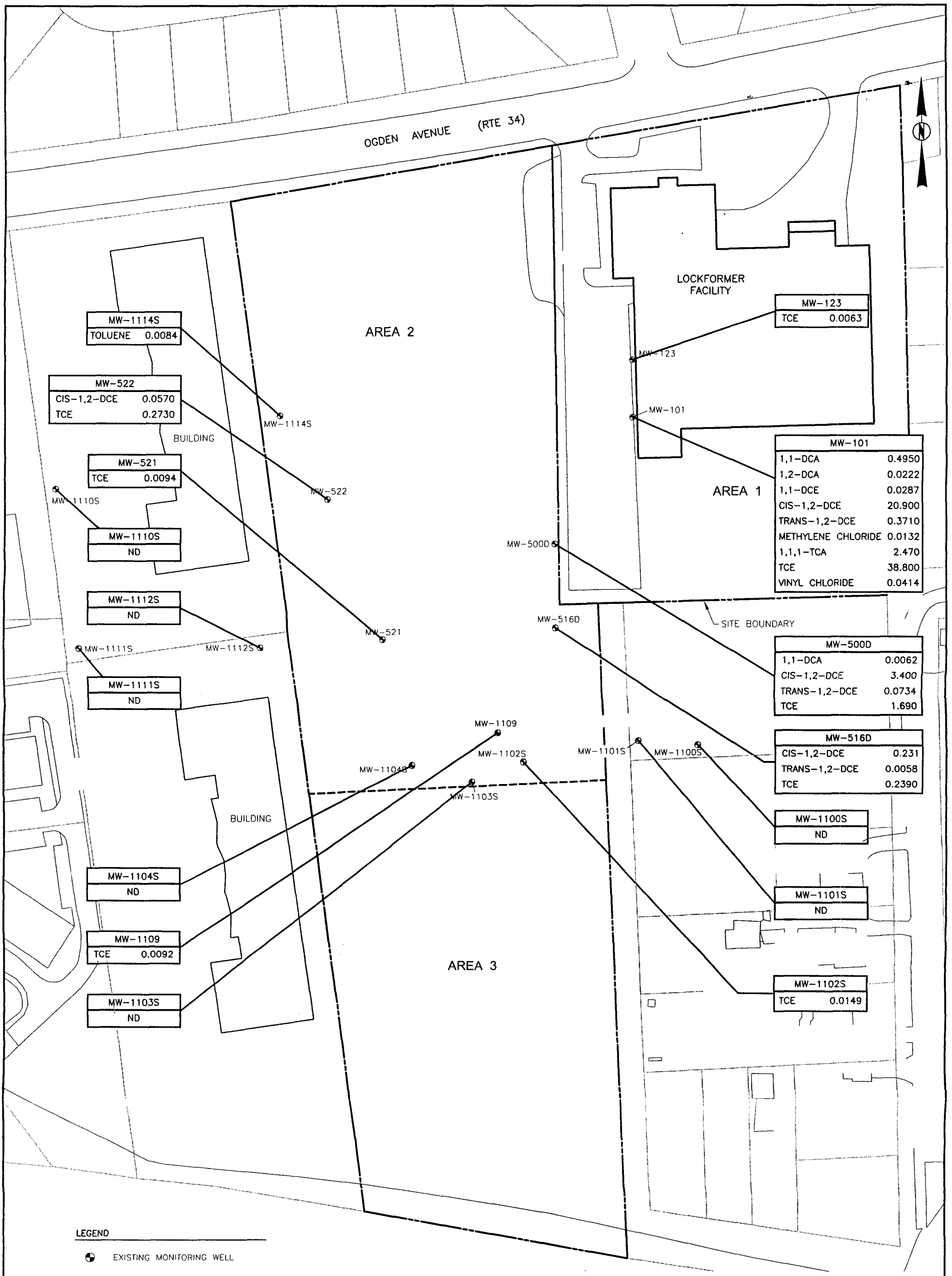
CHK BY	
DWN BY	OS/BCP
DATE	12-12-01
SCALE	AS SHOWN
CAD NO.	6526302v
PRJ NO.	15-65263

CROSS SECTION "SA-2 - SA-2'"
WITH TCE AND CIS-1,2-DCE SAMPLE RESULTS

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES

FIGURE
6.1.1-8



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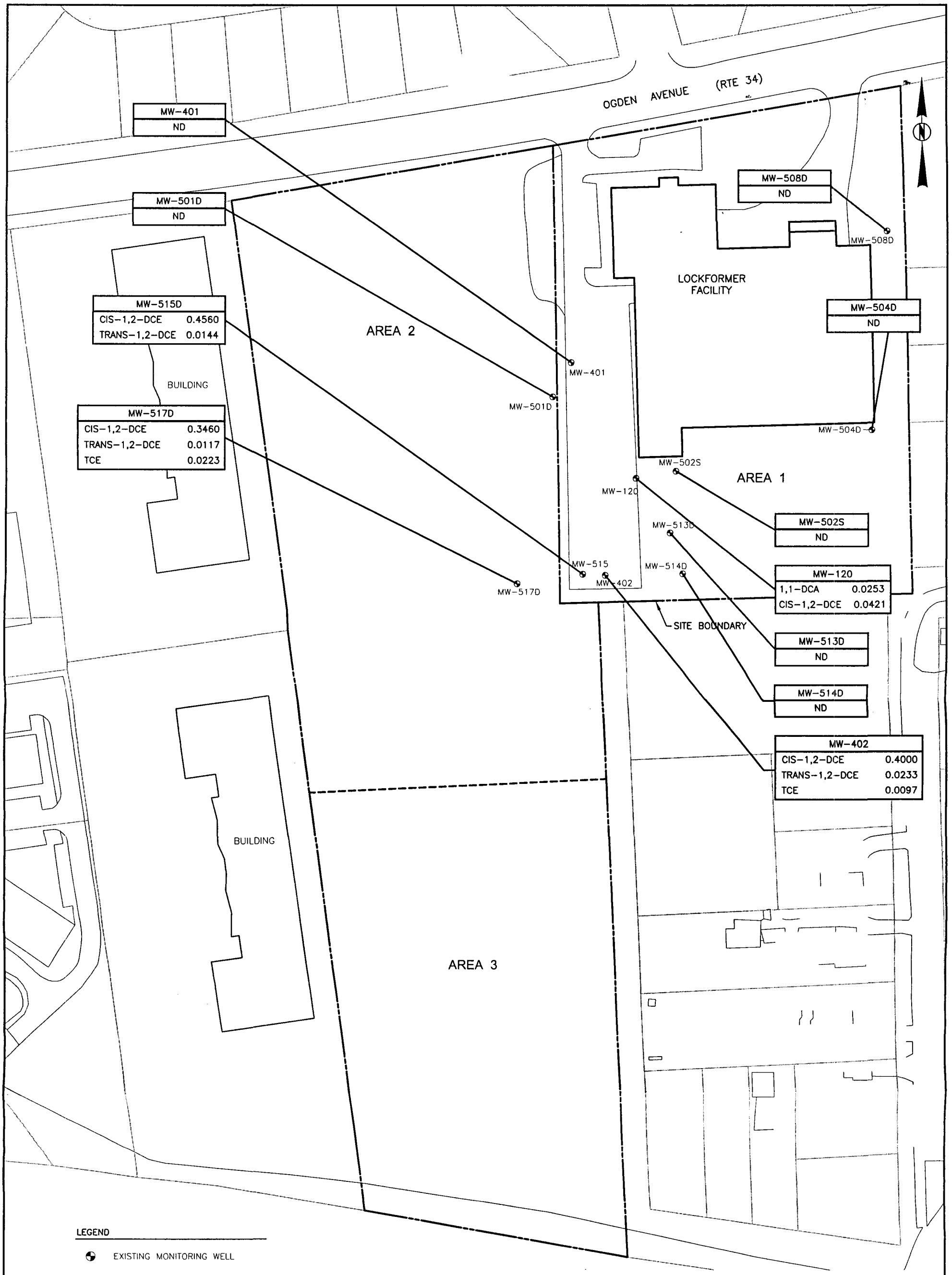
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08i
PRJ NO.	65263.01

MOST RECENT GROUNDWATER SAMPLING RESULTS FROM THE
FILL/TILL AND MASS WASTE UNIT MONITORING WELLS IN AREAS 1 AND 2

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES
3140 FINLEY ROAD, DOWNERS GROVE, IL 60515

FIGURE 6.1.2-1



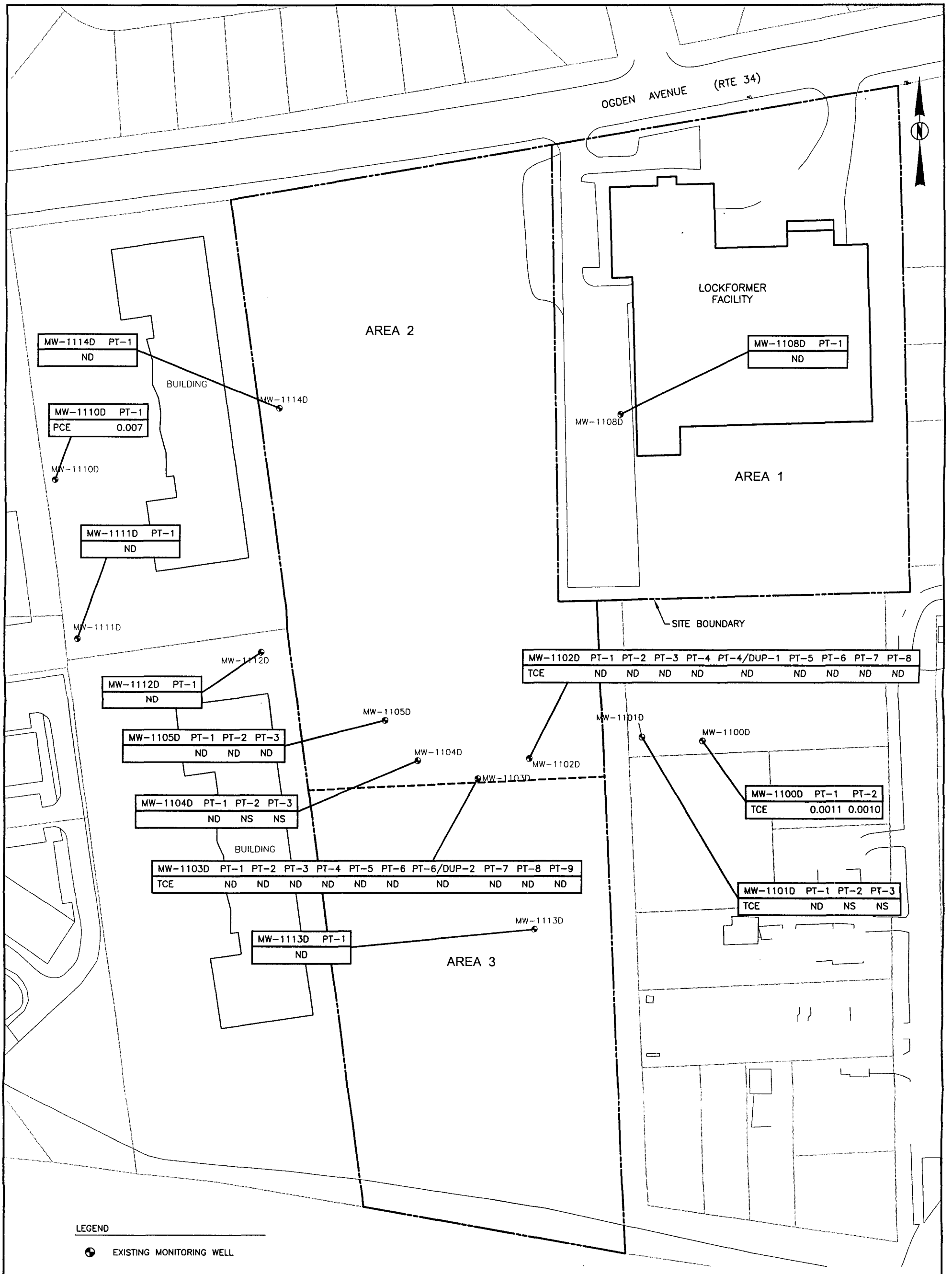
CHECK BY	
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08J
PRJ NO.	65263.01

RESULTS OF MONITORING WELLS COMPLETED IN THE LOWER TILL

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES
3140 FINLEY ROAD, DOWNERS GROVE, IL 60515

FIGURE 6.1.2-2

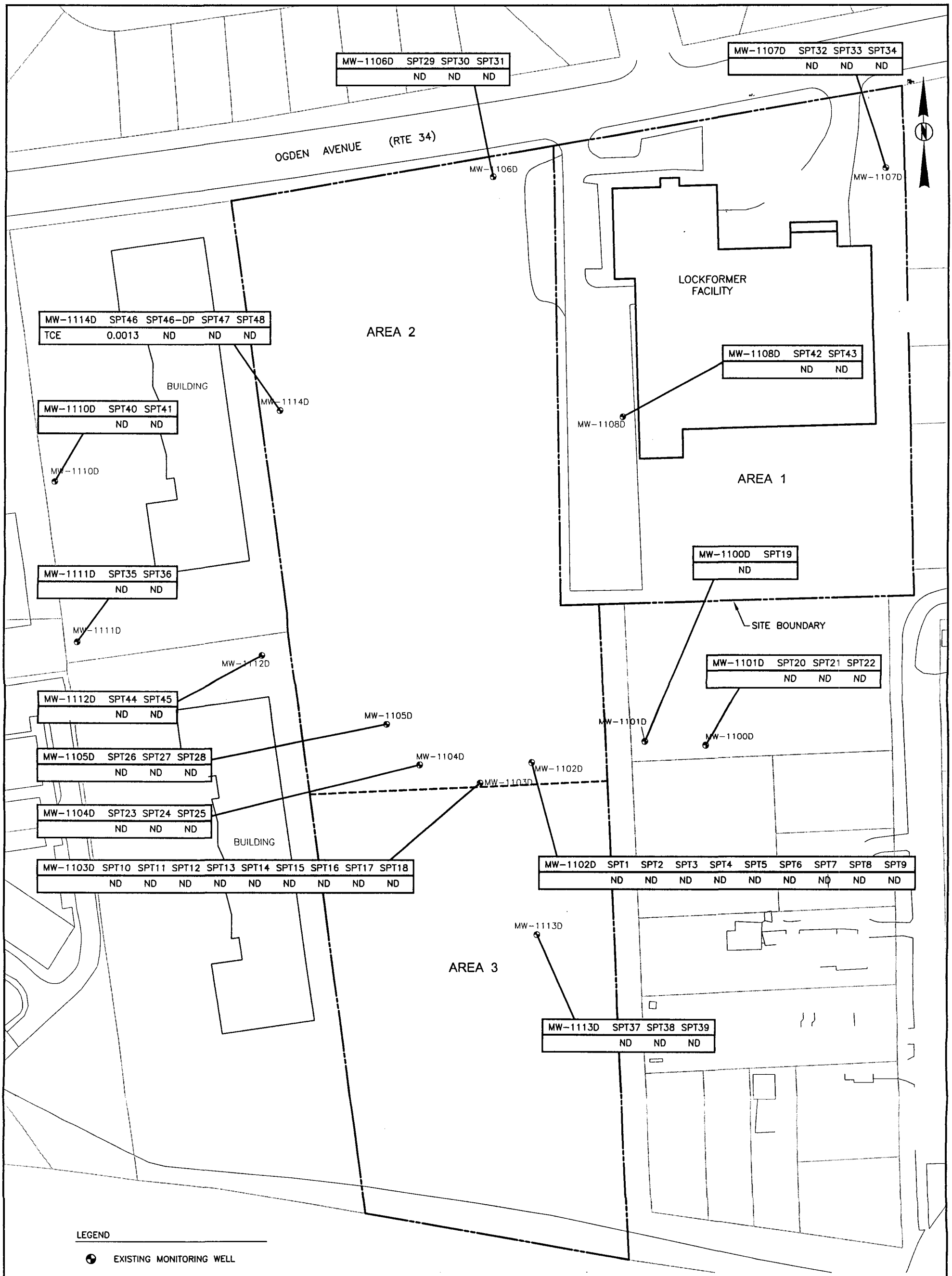


CHECK BY	
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08K
PRJ NO.	65263.01

RESULTS FROM SINGLE PACKER TESTS PERFORMED DURING
DRILLING OF THE BEDROCK MONITORING WELLS FOR
AREAS 1 AND 2 INVESTIGATIONS
THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES
3140 FINLEY ROAD, DOWNERS GROVE, IL 60515

FIGURE 6.1.2-3



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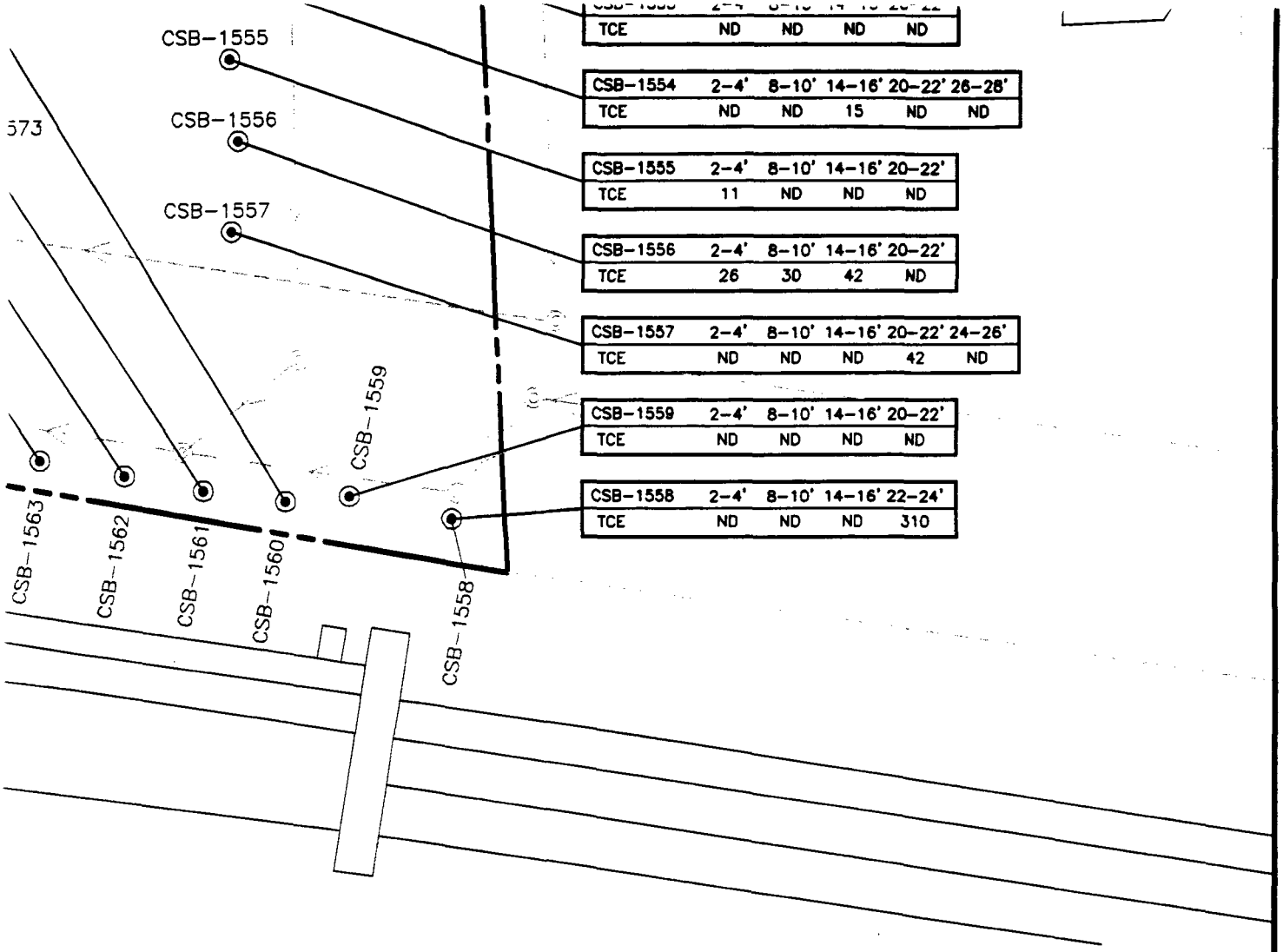
DRAWN BY	BCP
DATE	5-10-02
SCALE	AS SHOWN
CAD NO.	65263-08L
PRJ NO.	65263.01

RESULTS FOR CONTAMINANTS OF CONCERN FROM DOUBLE PACKER TESTS
PERFORMED ON THE BEDROCK MONITORING WELLS
AREAS 1 AND 2 INVESTIGATIONS
THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton GROUP SERVICES
3140 FINLEY ROAD, DOWNERS GROVE, IL 60515

FIGURE 6.1.2-4



TCE	ND	ND	ND	ND	

CSB-1554	2-4'	8-10'	14-16'	20-22'	26-28'
TCE	ND	ND	15	ND	ND

CSB-1555	2-4'	8-10'	14-16'	20-22'
TCE	11	ND	ND	ND

CSB-1556	2-4'	8-10'	14-16'	20-22'
TCE	26	30	42	ND

CSB-1557	2-4'	8-10'	14-16'	20-22'	24-26'
TCE	ND	ND	ND	42	ND

CSB-1559	2-4'	8-10'	14-16'	20-22'
TCE	ND	ND	ND	ND

CSB-1558	2-4'	8-10'	14-16'	22-24'
TCE	ND	ND	ND	310

SCALE IN FEET

0 25 50 100

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BY BCP
5-10-02
AS SHOWN
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. 65263.01

SUMMARY OF SOIL RESULTS FROM THE
1500-SERIES BORINGS IN AREA 3

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton
GROUP SERVICES

FIGURE
6.2.1-1

AREA 3

CSB-1560	24-28'
TCE	11

CSB-1561	24-28'
TCE	20

CSB-1573	24-28'
TCE	30.5

CSB-1562	24-28'
TCE	122
PCE	14
CIS-1,2-DCE	2

CSB-1562	24-28'
TCE	232
PCE	24.4
CIS-1,2-DCE	ND

CSB-1564	24-28'
TCE	161
PCE	3
CIS-1,2-DCE	4

CSB-1565	24-28'
TCE	140
PCE	4
CIS-1,2-DCE	4

CSB-1566	24-28'
TCE	123
PCE	5
CIS-1,2-DCE	4

CSB-1567	24-28'
TCE	116
PCE	2
CIS-1,2-DCE	4

CSB-1568	24-28'
TCE	50
PCE	1
CIS-1,2-DCE	1

TCE	27
PCE	1

CSB-1570	24-28'
TCE	32
PCE	1
MW-1115	
TCE	91.3

CSB-1510
CSB-1511
CSB-1527
CSB-1512
CSB-1542
CSB-1528
CSB-1513
CSB-1543
CSB-1572
CSB-1544
CSB-1529
CSB-1514
MW-1113D
MW-1113S
MW-1113M
CSB-1515
CSB-1571
CSB-1545
CSB-1530
CSB-1546
CSB-1547
CSB-1548
CSB-1549
CSB-1550
CSB-1551
CSB-1552
CSB-1553
CSB-1554
CSB-1555
CSB-1556
CSB-1557
CSB-1573

MW-1113S	
TCE	379

MW-1113M	
ND	
MW-1113M-DUP	
ND	

MW-1113D-SPT37	
ND	
MW-1113D-SPT38	
ND	
MW-1113D-SPT39	
ND	

CSB-1548	10-12'
TCE	18

CSB-1549	10-12'
TCE	8

CSB-1550	10-12'
TCE	23

CSB-1551	10-12'
TCE	3

CSB-1552	10-12'
TCE	12

CSB-1553	24-28'
TCE	42

CSB-1554	24-28'
TCE	19

CSB-1555	24-28'
TCE	4

[illegible]	24-28'
TCE	13
PCE	2

CSB-1557	24-28'
TCE	53
PCE	6

[illegible]559	24-28'
TCE	18
MW-1116	
TCE	21.7

[illegible]558	24-28'
TCE	9

MW-1115
CSB-1570
CSB-1569
CSB-1568
CSB-1567
CSB-1566
CSB-1565
CSB-1564
CSB-1563
CSB-1562
CSB-1561
CSB-1560
MW-1116
CSB-1559
CSB-1558

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- SANITARY SEWER LINE
- STORM SEWER LINE
- FIELD GC
- FIRST ENV. LAB, INC. (FIXED LAB RESULTS)

NOTE: GROUNDWATER DEPTHS ARE APPROXIMATE.
ALL RESULTS SHOWN IN ug/L

ND = NOT DETECTED

SCALE IN FEET
0 25 50 100

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PRJ NO.	65263.01

SUMMARY OF AREA 3 GROUNDWATER SAMPLING RESULTS

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

Clayton℠ GROUP SERVICES

FIGURE 6.2.2-1

CLASS AREA BOUNDARY

SUMMARY OF FRONT STREET SUBDIVISION
RESIDENTIAL WELL SAMPLING RESULTS AND SILURIAN DOLOMITE
PENETRATION DEPTH OF RESIDENTIAL WELLS

THE LOCKFORMER COMPANY
711 W. OGDEN AVENUE
LISLE, ILLINOIS

6.2.2-2

SECTION 6.0

TABLES

TABLE 6.1.1-1
Clayton Soil Borings Inside the Facility Building
Around the Storm and Sanitary Sewer, and the Vapor Degreaser

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1300			CSB-1301			CSB-1302			CSB-1303		
			2-4 ft	4-6 ft	12-14 ft	6-8 ft	10-12 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft	2-4 ft	4-6 ft	14-16 ft
			CL	CL	ML	CL	CL	CL	CL	CL	CL	sand fill	sand fill	CL
			5/18/01	5/18/01	5/18/01	5/18/01	5/18/01	5/18/01	5/21/01	5/21/01	5/21/01	5/21/01	5/21/01	5/21/01
Acetone	100,000	16	<0.010	<0.010	<0.010	**0.179**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	**0.036**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	**0.157**	**0.555**	**0.0084**	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	**0.0026**	**0.0212**	**0.0015**	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	**0.005**	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.100	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005
Trichloroethene	8.9	0.06	**0.0097**	**3.61**	<0.005	**0.0036**	**0.051**	**0.0027**	<0.005	<0.005	<0.005	<0.005	**1.07**	<0.005
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-1

Clayton Soil Borings Inside the Facility Building

Around the Storm and Sanitary Sewer, and the Vapor Degreaser

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1304			CSB-1305			CSB-1306			CSB-1307		
			2-4 ft	8-10 ft	14-16 ft	8-10 ft	10-12 ft	14-16 ft	4-6 ft	10-12 ft	14-16 ft	8-10 ft	10-12 ft	14-16 ft
			CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
			5/21/01	5/21/01	5/21/01	5/21/01	5/21/01	5/21/01	5/18/01	5/18/01	5/18/01	5/18/01	5/18/01	5/18/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**0.1**	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-1
Clayton Soil Borings Inside the Facility Building
Around the Storm and Sanitary Sewer, and the Vapor Degreaser

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1308			CSB-1309			CSB-1310			CSB-1311		
			2-4 ft	12-14 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft	0-2 ft	2-4 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft
			CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
			5/18/01	5/18/01	5/18/01	5/17/01	5/17/01	5/17/01	5/17/01	5/17/01	5/17/01	5/17/01	5/17/01	5/17/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	**0.085**	<0.010	<0.010	<0.010	<0.010	<0.010	**0.131**	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	0.005	<0.010	<0.010	<0.010	<0.010	<0.010	**0.0129**	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**0.0048**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0158**	**0.0683**	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-1
Clayton Soil Borings Inside the Facility Building
Around the Storm and Sanitary Sewer, and the Vapor Degreaser

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1312			CSB-1313			CSB-1314			CSB-1315		
			2-4 ft	8-10 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft	4-6 ft	8-10 ft	14-16 ft	4-6 ft	6-8 ft	14-16 ft
			CL	CL	CL	CL	CL	CL	CL	CL	CL	sand fill	CL	CL
			5/17/01	5/17/01	5/17/01	5/21/01	5/21/01	5/21/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
1,1,1-Trichloroethane	1,200	2	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.100	<0.005
Trichloroethene	8.9	0.06	<0.005	<0.005	<0.005	**0.0296**	<0.005	<0.005	<0.005	<0.005	<0.005	**2.52**	**14.7**	**0.011**
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0055**	<0.005	<0.100	<0.100	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-1
Clayton Soil Borings Inside the Facility Building
Around the Storm and Sanitary Sewer, and the Vapor Degreaser

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE													
			CSB-1316			CSB-1317			CSB-1318					CSB-1319		
			2-4 ft	4-6 ft	14-16 ft	2-4 ft	4-6 ft	14-16 ft	4-6 ft	6-8 ft	10-12 ft	12-14 ft	16-18 ft	0-2 ft	2-4 ft	14-16 ft
			CL	CL	CL	CL	CL	CL	sand fill	CL	CL	CL	CL	sand fill	CL	CL
			5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/23/01	5/23/01	5/23/01
Acetone	100,000	16	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
Benzene	1.6	0.03	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Bromodichloromethane	3,000	0.6	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Bromoform	100	0.8	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Bromomethane	NE	0.2	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
2-Butanone	NE	NE	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
Carbon disulfide	720	32	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Carbon tetrachloride	0.64	0.07	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Chlorobenzene	210	1	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Chlorodibromomethane	1,300	0.4	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Chloroethane	NE	NE	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
Chloroform	0.54	0.3	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Chloromethane	NE	NE	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
1,1,-Dichloroethane	1,700	23	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
1,2-Dichloroethane	0.7	0.02	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.100	<0.005	<0.005	<0.100	**0.0308**	<0.005	**1.01**	**12.4**	**8.67**	**2.9**	**0.0355**	<0.100	<0.100	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	**0.219**	**0.16**	**0.0053**	<0.100	<0.100	<0.005
1,2-Dichloropropane	23	0.03	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
trans,1,3-Dichloropropene			<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Ethyl benzene	400	13	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
2-Hexanone	NE	NE	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
4-Methyl-2-pentanone	NE	NE	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
Methylene chloride	24	0.02	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Styrene	1,500	4	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Tetrachloroethene	20	0.06	**0.465**	**0.0182**	<0.005	**5.81**	**0.0284**	<0.005	**1.32**	<0.100	<0.100	<0.100	<0.005	<0.100	**0.216**	<0.005
Toluene	650	12	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
1,1,1-Trichloroethane	1,200	2	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005
Trichloroethene	8.9	0.06	**23.3**	**6.37**	**0.0039 J**	**147**	**9.2**	<0.005	**81.3**	<0.100	**3.35**	**4.6**	**0.0356**	**5.04**	**26.4**	<0.005
Vinyl acetate	1,600	170	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
Vinyl chloride	1.1	0.01	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.100	<0.100	<0.100	<0.010	<0.100	<0.100	<0.010
Xylenes (total)	320	150	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.100	<0.100	<0.100	<0.005	<0.100	<0.100	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-1
Clayton Soil Borings Inside the Facility Building
Around the Storm and Sanitary Sewer, and the Vapor Degreaser

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1320			CSB-1321			CSB-1322			CSB-1323		
			2-4 ft	4-6 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft
			sand fill	sand fill	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
			5/23/01	5/23/01	5/23/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01
Acetone	100,000	16	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	**0.0915**	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	**0.0111**	<0.005	<0.005	**0.0119**	<0.005	<0.005
Toluene	650	12	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**1.53**	**10.6**	**0.0064**	<0.005	<0.005	<0.005	**0.480**	<0.005	<0.005	**0.26**	<0.005	<0.005
Vinyl acetate	1,600	170	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-1
Clayton Soil Borings Inside the Facility Building
Around the Storm and Sanitary Sewer, and the Vapor Degreaser

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE												
			CSB-1324			CSB-1325			CSB-1326			CSB-1327			CSB-1328
			2-4 ft	8-10 ft	14-16 ft	0-2 ft	2-4 ft	14-16 ft	2-4 ft	4-6 ft	14-16 ft	2-4 ft	10-12 ft	14-16 ft	0-2 ft
			CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	GP	CL
			5/24/01	5/24/01	5/24/01	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01	5/25/01	5/25/01	5/25/01	5/25/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**0.0147**	**0.168**	<0.005	<0.005	<0.005	<0.005	**0.0056**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	**0.0089**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	**0.0062**	<0.005	<0.005	**0.0053**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	**0.0193**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**8.56**	**0.0079**	<0.005	**5.62**	**14.7**	<0.005	**3.67**	**4.27**	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-2
Clayton Soil Boring Results
Around South Exterior Door

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1401			CSB-1402			CSB-1403			CSB-1404		
			0-2 ft	8-10 ft	14-16 ft	0-2 ft	8-10 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft	2-4 ft	4-6 ft	14-16 ft
			CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
			5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01
Acetone	100,000	16	**0.0844**	**0.0227**	**0.0206**	**0.0704**	**0.0269**	**0.0311**	**0.0141**	**0.0156**	**0.0276**	<0.010	**0.0416**	**0.0454**
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	**0.0012**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0019**	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	**0.0016**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	**0.0081**	**0.0035**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	**0.0056**	<0.005	<0.005	**0.0065**	<0.005	<0.005	<0.005	<0.005	**0.0042**	<0.005	**0.0042**	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	**0.0018**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0033**	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0028**	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	**0.0068**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	**0.0016**	<0.005	<0.005	**0.0016**	<0.005	**0.0017**	**0.0018**	<0.005	**0.0014**	**0.0021**	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	<0.005	<0.005	<0.005	<0.005	**0.0089**	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0017**	<0.005
Vinyl Acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	1.1	0.01	<0.010	<0.010	**0.0021**	<0.010	<0.010	**0.0059**	<0.010	<0.010	**0.0057**	<0.010	<0.010	**0.0031**
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-2
Clayton Soil Boring Results
Around South Exterior Door

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1405			CSB-1406			CSB-1407			CSB-1408		
			2-4 ft	8-10 ft	14-16 ft	0-2 ft	8-10 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft	2-4 ft	8-10 ft	14-16 ft
			CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
			5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01	5/30/01
Acetone	100,000	16	**0.0199**	**0.0154**	**0.0144**	**0.109**	**0.0942**	**0.0215**	**0.0873**	**0.0799**	**0.0255**	**0.199**	**0.0523**	**0.0184**
Benzene	1.6	0.03	**0.0012**	<0.005	**0.0014**	<0.005	<0.005	**0.0015**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	**0.0106**	<0.010	**0.0070**	**0.0053**	<0.010	**0.0245**	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0043**	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	**0.0031**	**0.0031**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	1,700	23	<0.005	**0.0057**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	1,200	0.4	<0.005	**0.0048**	**0.0025**	<0.005	**0.0055**	**0.0107**	<0.005	<0.005	<0.005	<0.005	**0.0072**	<0.005
trans-1,2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	**0.0072**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	**0.0011**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	**0.002**	**0.0012**	**0.0023**	<0.005	<0.005	**0.002**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	**0.0243**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**0.0018**	**0.0632**	<0.005	**0.0063**	<0.005	<0.005	<0.005	**0.0052**	<0.005	**0.0029**	**0.0062**	<0.005
Vinyl Acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	1.1	0.01	<0.010	<0.010	**0.0014**	<0.010	**0.0088**	**0.0026**	<0.010	<0.010	**0.0016**	<0.010	**0.0057**	**0.0024**
Xylenes (total)	320	150	**0.0019**	**0.0016**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: [a] = Most conservative soil remediation objective established in 35 IAC 742.Appendix B.Table A.

(a) = [b] = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route

(b) = established in 35 IAC 742 Appendix B.Table B.

(c) = NE = Not Established

NE = Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

TABLE 6.1.1-3
Sewer System Sediment Analytical Results

The Lockformer Company / Lisle, Illinois

COMPOUNDS	*TACO Tier 1 Soil Remediation Objectives	Sample Location / Date Sampled		
		MH-1 6/26/01	MH-4 6/26/01	CB-1 6/26/01
Acetone	16	<0.010	<0.010	<0.010
Benzene	0.03	<0.005	<0.005	<0.005
Bromodichloromethane	0.6	<0.005	<0.005	<0.005
Bromoform	0.8	<0.005	<0.005	<0.005
Bromomethane	0.2	<0.010	<0.010	<0.010
2-Butanone	NE	<0.010	<0.010	<0.010
Carbon disulfide	32	<0.005	<0.005	<0.005
Carbon tetrachloride	0.07	<0.005	<0.005	<0.005
Chlorobenzene	1	<0.005	<0.005	<0.005
Chlorodibromomethane	0.4	<0.005	<0.005	<0.005
Chloroethane	NE	<0.010	<0.010	<0.010
Chloroform	0.3	<0.005	<0.005	<0.005
Chloromethane	NE	<0.010	<0.010	<0.010
1,1,-Dichloroethane	23	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.02	<0.005	<0.005	<0.005
1,1,-Dichloroethene	0.06	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	0.4	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	0.7	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.03	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	0.004	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene		<0.005	<0.005	<0.005
Ethyl benzene	13	<0.005	<0.005	<0.005
2-Hexanone	NE	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	<0.010	<0.010	<0.010
Methylene chloride	0.02	<0.005	<0.005	<0.005
Styrene	4	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	<0.005	<0.005	<0.005
Tetrachloroethene	0.06	<0.005	<0.005	<0.005
Toluene	12	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	2	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.02	<0.005	<0.005	<0.005
Trichloroethene	0.06	<0.005	<0.005	<0.005
Vinyl acetate	170	<0.010	<0.010	<0.010
Vinyl chloride	0.01	<0.010	<0.010	<0.010
Xylenes (total)	150	<0.005	<0.005	<0.005

NOTES:

Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

* Most conservative remediation objective established in 35 IAC 742 Appendix B.Table A.

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE									
			CSB-1200					CSB-1201				
			6-8 ft	12-14 ft	32-34 ft	46-48 ft	48-50 ft	6-8 ft	14-16 ft	20-22 ft	52-54 ft	56-58 ft
			CL	CL	CL	SW	CL	CL	CL	CL	SW	CL
			4/22/01	4/22/01	4/22/01	4/22/01	4/22/01	4/22/01	4/22/01	4/22/01	4/22/01	4/22/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	**0.0279**	<0.010	<0.100	<0.010
Benzene	1.6	0.03	<0.005	**0.0068**	<0.005	<0.005	<0.005	<0.100	**0.0114**	<0.005	<0.100	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0123**	<0.005	<0.100	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0899**	**0.081**	<0.100	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0074**	<0.005	<0.100	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0608**	**0.0428**	<0.100	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**0.2**	<0.005	<0.005	<0.005	<0.005	**3.47**	**3.49**	**0.0805**	<0.100	<0.005
trans,1-2-Dichloroethene	3,100	0.7	**0.0205**	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0232**	**0.015**	<0.100	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.119**	<0.005	<0.100	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	**0.0076**	<0.005	**0.538**	**11.5**	<0.005	**0.336**	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0315**	<0.005	<0.100	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	**0.0135**	<0.005	**0.0011**	<0.005	<0.100	**0.0311**	<0.005	<0.100	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0163**	<0.005	<0.100	<0.005
Trichloroethene	8.9	0.06	<0.005	**103**	**0.609**	**50.9**	**2.14**	**28.9**	**2,280**	**65.4**	**42.3**	**0.0064**
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	**0.0149**	**0.0287**	<0.100	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.100	**0.0018**	<0.005	<0.100	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE											
			CSB-1202											
			8-10 ft	12-14 ft	26-28 ft	38-40 ft	48-50 ft	50-52 ft	56-58 ft	60-62 ft	66-68 ft	72-74 ft	78-80 ft	82-84 ft
			CL	CL	CL	GP	CL	CL	CL	CL	SP	SP	wthr bed	wthr bed
			4/23/01	4/23/01	4/23/01	4/23/01	4/23/01	4/23/01	4/23/01	4/23/01	4/23/01	4/23/01	4/23/01	4/23/01
Acetone	100,000	16	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<1.000	**4.86**	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**12.3**	**55**	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<1.000	**1.95**	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<1.000	<1.000	<0.005	**0.371**	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	**24.2**	**89**	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**99.2**	**512**	<0.005	**11.5**	**0.79**	**0.0074**	**0.472**	**0.0149**	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<1.000	<1.000	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<1.000	<1.000	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE												
			CSB-1203					CSB-1204							
			8-10 ft	10-12 ft	22-24 ft	30-32 ft	48-50 ft	6-8 ft	10-12 ft	26-28 ft	30-32 ft	42-44 ft	50-52 ft	53 ft	56-58 ft
			CL	CL	CL	GP	CL	CL	CL	CL	SW	SW	CL	CL	SM
			4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01
Acetone	100,000	16	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**38.9**	**33.2**	<0.005	<0.100	<0.005	**4.64**	**8.27**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<1.000	<1.000	<0.005	<0.100	<0.005	**0.333**	**0.263**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	**0.123**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	**0.0073**	**0.0126**	<0.005	<0.005	<0.005
Toluene	650	12	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	**4.13**	**10.8**	<0.005	<0.100	<0.005	**0.0208**	**0.432**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**156**	**206**	<0.005	**3.09**	<0.005	**5.83**	**51.2**	**0.0054**	**0.59**	**1.1**	<0.005	**0.0055**	<0.005
Vinyl acetate	1,600	170	<1.000	<1.000	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<1.000	<1.000	<0.010	<0.100	<0.010	**0.531**	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<1.000	<1.000	<0.005	<0.100	<0.005	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE							
			CSB-1205							
			8-10 ft	10-12 ft	20-22 ft	34-36 ft	44-46 ft	46-48 ft	50-52 ft	56-58 ft
			CL	CL	CL	SP	CL	CL	CL	SW
			4/25/01	4/25/01	4/25/01	4/25/01	4/25/01	4/25/01	4/25/01	4/25/01
Acetone	100,000	16	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**1.96**	**4.16**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.100	**0.0256**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.100	<0.005	<0.005	**0.0165**	**0.0143**	<0.005	<0.005	<0.005
Toluene	650	12	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.100	**0.035**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**116**	**172**	**0.0725**	**0.913**	**0.634**	**0.624**	**0.0123**	**0.0041**
Vinyl acetate	1,600	170	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE							
			CSB-1206							
			2-4 ft	10-12 ft	22-24 ft	36-38 ft	44-46 ft	48-50 ft	52-54 ft	58-60 ft
			CL	CL	CL	SW	SW	CL	CL	SM
			5/1/01	5/1/01	5/1/01	5/1/01	5/1/01	5/1/01	5/1/01	5/1/01
Acetone	100,000	16	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**0.593**	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	**0.0143**	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.100	<0.005	**0.239**	**0.218**	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	**0.005**	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	<0.005	**5.23**	<0.005	**8.36**	**6.24**	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.100	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.100	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE								
			CSB-1207								
			6-8 ft	12-14 ft	22-24 ft	30-32 ft	36-38 ft	44-46 ft	50-52 ft	58-60 ft	74-76 ft
			CL	CL	CL	CL	GW	GW	CL	CL	SM
			5/1/01	5/1/01	5/1/01	5/1/01	5/1/01	5/1/01	5/2/02	5/2/02	5/2/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	**0.0085**	**0.0214**	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	**0.0057**	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	<0.005	<0.005	<0.005	<0.005	**0.914**	**20.1**	**0.115**	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE							
			CSB-1208							
			8-10 ft	12-14 ft	28-30 ft	32-34 ft	44-46 ft	48-50 ft	52-54 ft	62-64 ft
			CL	CL	CL	GW	SP	CL	CL	SM
			5/2/02	5/2/02	5/2/02	5/2/02	5/2/02	5/2/02	5/2/02	5/2/02
Acetone	100,000	16	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	**0.0062**	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	**0.0109**	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	**0.109**	**0.175**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	**0.0337**	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	**0.0779**	**0.111**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**38**	**30**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	**0.656**	**0.716**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	**0.0317**	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	**0.015**	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**15.4**	**2.94**	**0.582**	**0.11**	**0.911**	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	**0.031**	**0.127**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE								
			CSB-1209								
			8-10 ft	12-14 ft	22-24 ft	28-30 ft	34-36 ft	40-42 ft	46-48 ft	52-54 ft	64-66 ft
			CL	CL	CL	CL	SP	SP	CL	CL	SP
			5/4/01	5/4/01	5/4/01	5/4/01	5/4/01	5/4/01	5/4/01	5/4/01	5/4/01
Acetone	100,000	16	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**19.2**	**21.4**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	**0.365**	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**2.36**	**3.91**	<0.005	<0.005	**0.0576**	**0.118**	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<1.000	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<1.000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE								
			CSB-1210								
			6-8 ft	10-12 ft	24-26 ft	36-38 ft	42-44 ft	48-50 ft	54-56 ft	58-60 ft	68-70 ft
			CL	CL	CL	SP	SP	CL	SM	SM	SM
			5/4/01	5/5/01	5/5/01	5/5/01	5/5/01	5/5/01	5/5/01	5/5/01	5/5/01
Acetone	100,000	16	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	1	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**6.56**	**13.2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<1.000	**0.414**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	**1.2**	**0.45**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<1.000	**0.181**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**18.9**	**74.5**	<0.005	**0.194**	**0.816**	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<1.000	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<1.000	<0.100	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4
Soil Sample Results
1200 Series Borings in the Immediate Vicinity of the Former TCE Fill Pipe

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE								
			MW-1108S								
			2-4 ft	14-16 ft	20-22 ft	28-30 ft	36-38 ft	46-48 ft	48-50 ft	56-58 ft	64-66 ft
			CL	CL	CL	CL	SP	SP	CL	CL	SP
			5/3/01	5/3/01	5/3/01	5/3/01	5/3/01	5/3/01	5/3/01	5/3/01	5/3/01
Acetone	100,000	16	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Bromoform	100	0.8	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	**38.2**	**11.6**	**0.0033**	**0.0032**	**0.182**	<0.100	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Styrene	1,500	4	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	**18**	**14.7**	<0.005	<0.005	**0.394**	**0.408**	<0.005	<0.005	<0.005
Toluene	650	12	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	**765**	**2,220**	**0.0107**	**0.0686**	**16.8**	**34.9**	**0.0186**	**0.0198**	**0.0048**
Vinyl acetate	1,600	170	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<5.000	<1.000	<0.010	<0.010	<0.100	<0.100	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<5.000	<1.000	<0.005	<0.005	<0.100	<0.100	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative soil remediation objective (SRO) established in 35 IAC 742.Appendix B.Table A.

(b) = TACO Tier 1 SRO for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds Objective

TABLE 6.1.1-4A
Soil Analytical Results
Borings Performed During the Hydrogeologic Study

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE												
			CSB-126B				CSB-521B			MW-1100D		MW-1102D	MW-1107D	MW-1110D	
			10-12 ft	18-20 ft	42-44 ft	44-46 ft	8-10 ft	12-14 ft	28-30 ft	33 ft	35 ft	39 ft	10-15 ft	6-8 ft	8-10 ft
			CL	GP	GP	CL	CL	CL	GP	SP	SP	CL	CL	CL	GP
			9/6/01	9/6/01	9/6/01	9/6/01	9/8/01	9/8/01	9/8/01	3/1/01	3/1/01	3/2/01	3/21/01	8/22/01	8/22/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative remediation objective established in 35 IAC 742 Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds objective

TABLE 6.1.1-4A
Soil Analytical Results
Borings Performed During the Hydrogeologic Study

The Lockformer Company / Lisle, Illinois

COMPOUNDS	RAO for Surficial Silty Clay Till/Fill[b]	RAO for Mass Waste Unit[a]	SAMPLE LOCATION, DEPTH, MATERIAL[c] AND COLLECTION DATE								
			MW-1112S				MW-1113D		MW-1114D		
			0-2 ft	2-4 ft	10-12 ft	22-24 ft	16-18 ft	32-34 ft	10-12 ft	28-30 ft	36-38 ft
			CL	CL	GP	GP	GP	GP	CL	GP	CL
			8/26/01	8/26/01	8/26/01	8/26/01	9/7/01	9/7/01	9/8/01	9/8/01	9/8/01
Acetone	100,000	16	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	1.6	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	3,000	0.6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	100	0.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	NE	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	720	32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.64	0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	210	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	1,300	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.54	0.3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,-Dichloroethane	1,700	23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.7	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,-Dichloroethene	1,500	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-2-Dichloroethene	1,200	0.4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1-2-Dichloroethene	3,100	0.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	23	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis,1-3-Dichloropropene	2.1	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans,1,3-Dichloropropene			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	400	13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	24	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	1,500	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	20	0.06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	650	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	1,200	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	1,800	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	8.9	0.06	<0.005	<0.005	<0.005	<0.005	**0.0183**	**0.0128**	<0.005	<0.005	<0.005
Vinyl acetate	1,600	170	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	1.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (total)	320	150	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: Values expressed in milligrams per kilogram (mg/kg) or parts per million (ppm).

(a) = Most conservative remediation objective established in 35 IAC 742 Appendix B.Table A.

(b) = TACO Tier 1soil remediation objective for industrial/commercial inhalation exposure route established in 35 IAC 742 Appendix B.Table B.

(c) = Unified Soil Classification System (USCS).

NE = Not Established **Bold** = Detected **Bold** = Exceeds objective

TABLE 6.1.2-1
Groundwater Sample Results from Monitoring Wells
Completed in the Glacial Sediments During the Lockformer Groundwater Investigation

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE											
	Class I	Class II	MW-101 6/21/01	MW-120 6/21/01	MW-123 6/20/01	MW-126 6/15/01	MW-401 6/15/01	MW-402 6/19/01	MW-500D 6/21/01	MW-501D 6/19/01	MW-502S 6/14/01	MW-504D 6/13/01	MW-508D 6/12/01	MW-513D 6/12/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	**0.4950**	**0.0253**	<0.005	<0.005	<0.005	<0.005	**0.0062**	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	**0.0222**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	**0.0287**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	**20.900**	**0.0421**	<0.005	<0.005	<0.005	**0.4000**	**3.400**	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	**0.3710**	<0.005	<0.005	<0.005	<0.005	**0.0233**	**0.0734**	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	**0.0132**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	**2.470**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	**0.0263**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	**38.800**	<0.005	**0.0063**	<0.005	<0.005	**0.0097**	**1.690**	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	**0.0414**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).

* 35 IAC 742. Appendix B, Table E

NE = Not Established

Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-1
Groundwater Sample Results from Monitoring Wells
Completed in the Glacial Sediments During the Lockformer Groundwater Investigation

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE											
	Class I	Class II	MW-514D 6/14/01	MW-515D 6/14/01	MW-515D *Duplicate 2* 6/14/01	MW-516D 6/20/01	MW-516D *Duplicate 3* 6/20/01	MW-517D 6/19/01	MW-521 6/18/01	MW-522 6/18/01	MW-1100S 6/11/01	MW-1101S 6/11/01	MW-1102S 6/6/01	MW-1102S *Duplicate 1* 6/6/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	**0.4560**	**0.4290**	**0.2310**	**0.2330**	**0.3460**	<0.005	**0.0570**	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	**0.0144**	**0.0143**	**0.0058**	**0.0061**	**0.0117**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	<0.005	<0.005	<0.005	**0.2300**	**0.2480**	**0.0223**	**0.0094**	**0.2730**	<0.005	<0.005	**0.0149**	**0.0152**
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).

* 35 IAC 742. Appendix B, Table E

NE = Not Established

Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-1
Groundwater Sample Results from Monitoring Wells
Completed in the Glacial Sediments During the Lockformer Groundwater Investigation

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE											
	Class I	Class II	MW-1103S 6/6/01	MW-1103M 6/5/01	MW-1104S 6/6/01	MW-1108S 6/12/01	MW-1109 6/19/01	MW-1110S 9/25/01	MW-1111S 9/25/01	MW-1112S 9/25/01	MW-1113S 9/26/01	MW-1113M 9/26/01	MW-1113M *Duplicate 4* 9/26/01	MW-1114S 9/26/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0084**
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	**0.0092**	<0.005	<0.005	<0.005	**0.379**	<0.005	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).

* 35 IAC 742. Appendix B, Table E

NE = Not Established

Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-1
Groundwater Sample Results from Monitoring Wells
Completed in the Glacial Sediments During the Lockformer Groundwater Investigation

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE					
	Class I	Class II	MW-1115 11/27/01	MW-1116 11/27/01	MW-1600S 11/26/01	MW-1601S 11/27/01	MW-1602S 11/26/01	MW-1602S *Duplicate 6* 11/26/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	**0.0061**	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	**0.0913**	**0.0217**	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
* 35 IAC 742. Appendix B, Table E
NE = Not Established
Bold = Detected
Bold = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-2
Groundwater Sample Results
Single Packer Tests Performed During Drilling of the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION, DEPTH (ft bgs), AND COLLECTION DATE											
			MW-1100D		MW-1101D			MW-1102D						
	Class I	Class II	PT-1 66 - 71 3/31/01	PT-2 67 - 74 3/31/01	PT-1 74.3 - 81.3 4/17/01	PT-2 84.4 - 91.4	PT-3 89.4 - 96.4	PT-1 80 - 87 4/2/01	PT-2 90 - 97 4/2/01	PT-3 100 - 107 4/2/01	PT-4 109 - 116 4/2/01	DUP-1/PT-4 109 - 116 4/2/01	PT-5 120 - 127 4/3/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromodichloromethane	0.0002	0.0002	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromoform	0.001	0.001	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Carbon Tetrachloride	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chlorobenzene	0.1	0.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chlorodibromomethane	0.14	0.14	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloroethane	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloromethane	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloroethane	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1-Dichloroethene	0.007	0.035	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,2-Dichloroethene	0.07	0.2	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,2-Dichloroethene	0.1	0.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ethylbenzene	0.7	1.0	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Styrene	0.1	0.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2,2-Tetrachloroethane	NE	NE	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Tetrachloroethene	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	1.0	2.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,1-Trichloroethane	0.2	1.0	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2-Trichloroethane	0.005	0.05	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trichloroethene	0.005	0.025	**0.0011**	**0.0010**	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NS = Not Sampled due to dry conditions.
NE = Not Established
* 35 IAC 742.Appendix B, Table E.
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-2
Groundwater Sample Results
Single Packer Tests Performed During Drilling of the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION, DEPTH (ft bgs), AND COLLECTION DATE										
			MW-1102D			MW-1103D							
	Class I	Class II	PT-6 130 - 137 4/3/01	PT-7 139 - 146 4/4/01	PT-8 150 - 157 4/4/01	PT-1 74 - 81.5 4/9/01	PT-2 84.5 - 91.5 4/9/01	PT-3 94.5-101.5 4/10/01	PT-4 104.5-111.5 4/10/01	PT-5 114.5-121.5 4/10/01	PT-6 124.5-131.5 4/10/01	DUP-2/PT-6 124.5-131.5 4/10/01	PT-7 134.5-141.5 4/10/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromodichloromethane	0.0002	0.0002	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromoform	0.001	0.001	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Carbon Tetrachloride	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chlorobenzene	0.1	0.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chlorodibromomethane	0.14	0.14	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloroethane	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1-Dichloroethene	0.007	0.035	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,2-Dichloroethene	0.07	0.2	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,2-Dichloroethene	0.1	0.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ethylbenzene	0.7	1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Styrene	0.1	0.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2,2-Tetrachloroethane	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Tetrachloroethene	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	1.0	2.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,1-Trichloroethane	0.2	1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2-Trichloroethane	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trichloroethene	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NS = Not Sampled due to dry conditions.
NE = Not Established
* 35 IAC 742.Appendix B, Table E.
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-2
Groundwater Sample Results
Single Packer Tests Performed During Drilling of the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION, DEPTH (ft bgs), AND COLLECTION DATE								
			MW-1103D		MW-1104D			MW-1105D			MW-1108D
	Class I	Class II	PT-8 144.5-151.5 4/10/01	PT-9 147 - 154 4/10/01	PT-1 74.5 - 81.5 4/12/01	PT-2 84.5 - 91.5	PT-3 92 - 99.5	PT-1 80 - 88 3/30/01	PT-2 92 - 99 3/30/01	PT-3 97 - 104 3/30/01	PT-1 86 - 96 9/9/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Bromodichloromethane	0.0002	0.0002	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Bromoform	0.001	0.001	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Carbon Tetrachloride	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Chlorobenzene	0.1	0.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Chlorodibromomethane	0.14	0.14	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Chloroethane	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Chloromethane	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloroethane	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
1,1-Dichloroethene	0.007	0.035	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,2-Dichloroethene	0.07	0.2	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,2-Dichloroethene	0.1	0.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Ethylbenzene	0.7	1.0	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Styrene	0.1	0.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2,2-Tetrachloroethane	NE	NE	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Tetrachloroethene	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	1.0	2.5	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
1,1,1-Trichloroethane	0.2	1.0	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2-Trichloroethane	0.005	0.05	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Trichloroethene	0.005	0.025	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	NS	NS	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.0050	<0.0050	<0.0050	NS	NS	<0.0050	<0.0050	<0.0050	<0.0050

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NS = Not Sampled due to dry conditions.
NE = Not Established
* 35 IAC 742.Appendix B, Table E.
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-2
Groundwater Sample Results
Single Packer Tests Performed During Drilling of the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION, DEPTH (ft bgs), AND COLLECTION DATE							
			MW-1110D	MW-1111D	MW-1112D	MW-1113D	MW-1114D	MW-1600D	MW-1601D	MW-1602D
	Class I	Class II	PT-1 56 - 66 8/27/01	PT-1 56 - 66 8/28/01	PT-1 55 - 66 8/28/01	PT-1 66 - 76 9/9/01	PT-1 77 - 82 9/11/01	PT-1 102 - 112 11/13/01	PT-1 84 - 92 11/11/01	PT-1 67 - 77 11/12/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromodichloromethane	0.0002	0.0002	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromoform	0.001	0.001	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Carbon Tetrachloride	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chlorobenzene	0.1	0.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chlorodibromomethane	0.14	0.14	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloroethane	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1-Dichloroethene	0.007	0.035	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,2-Dichloroethene	0.07	0.2	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,2-Dichloroethene	0.1	0.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cis-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trans-1,3-Dichloropropane	0.001	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ethylbenzene	0.7	1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Styrene	0.1	0.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2,2-Tetrachloroethane	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Tetrachloroethene	0.005	0.025	**0.007**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	1.0	2.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,1-Trichloroethane	0.2	1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,1,2-Trichloroethane	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Trichloroethene	0.005	0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NS = Not Sampled due to dry conditions.
NE = Not Established
* 35 IAC 742.Appendix B, Table E.
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-3
Groundwater Sample Results
Double Packer Tests Performed on the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE											
	Class I	Class II	MW-1102D-SPT1 6/11/01	MW-1102D-SPT2 6/12/01	MW-1102D-SPT3 6/12/01	MW-1102D-SPT4 6/13/01	MW-1102D-SPT5 6/13/01	MW-1102D-SPT6 6/13/01	MW-1102D-SPT7 6/14/01	MW-1102D-SPT8 6/14/01	MW-1102D-SPT9 6/14/01	MW-1103D-SPT10 6/15/01	MW-1103D-SPT11 6/15/01	MW-1103D-SPT12 6/15/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**0.282**	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NE = Not Established
* = 35 IAC 742. Appendix B, Table E
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-3
Groundwater Sample Results
Double Packer Tests Performed on the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE											
	Class I	Class II	MW-1103D-SPT13 6/18/01	MW-1103D-SPT14 6/19/01	MW-1103D-SPT15 6/19/01	MW-1103D-SPT16 6/19/01	MW-1103D-SPT17 6/19/01	MW-1103D-SPT18 6/19/01	MW-1100D-SPT19 6/20/01	MW-1101D-SPT20 6/20/01	MW-1101D-SPT21 6/20/01	MW-1101D-SPT22 6/20/01	MW-1104D-SPT23 6/21/01	MW-1104D-SPT24 6/21/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	**0.0125**	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	<0.005	<0.005	<0.005	**<0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	**<0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NE = Not Established
* = 35 IAC 742. Appendix B, Table E
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-3
Groundwater Sample Results
Double Packer Tests Performed on the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE											
	Class I	Class II	MW-1104D-SPT25 6/21/01	MW-1105D-SPT26 6/22/01	MW-1105D-SPT27 6/22/01	MW-1105D-SPT28 6/22/01	MW-1106D-SPT29 6/25/01	MW-1106D-SPT30 6/25/01	MW-1106D-SPT31 6/25/01	MW-1107D-SPT32 6/26/01	MW-1107D-SPT33 6/26/01	MW-1107D-SPT34 6/26/01	MW-1111D-SPT35 9/26/01	MW-1111D-SPT36 9/26/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**0.600**	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NE = Not Established
* = 35 IAC 742. Appendix B, Table E
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-3
Groundwater Sample Results
Double Packer Tests Performed on the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE											
	Class I	Class II	MW-1113D-SPT37 9/27/01	MW-1113D-SPT38 9/27/01	MW-1113D-SPT39 9/27/01	MW-1110D-SPT40 9/28/01	MW-1110D-SPT41 9/28/01	MW-1108D-SPT42 10/1/01	MW-1108D-SPT43 10/1/01	MW-1112D-SPT44 10/2/01	MW-1112D-SPT45 10/2/01	MW-1114D-SPT46 10/3/01	MW-1114D-SPT46 (Duplicate #5) 10/3/01	MW-1114D-SPT47 10/3/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0027**	**0.0013**	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**0.0013**	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NE = Not Established
* = 35 IAC 742. Appendix B, Table E
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-3
Groundwater Sample Results
Double Packer Tests Performed on the Bedrock Monitoring Wells

The Lockformer Company / Lisle, Illinois

COMPOUNDS	* TACO Tier 1 Groundwater Remediation Objectives		SAMPLE LOCATION AND COLLECTION DATE									
	Class I	Class II	MW-1114D-SPT48 10/3/01	MW-1600D-SPT49 11/19/01	MW-1600D-SPT50 11/19/01	MW-1600D-SPT51 11/19/01	MW-1601D-SPT100 11/18/01	MW-1601D-SPT101 11/18/01	MW-1601D-SPT102 11/18/01	MW-1602D-SPT52 11/28/01	MW-1602D-SPT53 11/28/01	MW-1602D-SPT54 11/28/01
Acetone	0.7	0.7	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.0002	0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.0098	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.14	0.14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	0.0002	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	0.7	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.007	0.035	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,2-Dichloroethene	0.07	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,2-Dichloroethene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cis-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trans-1,3-Dichloropropane	0.001	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	NE	NE	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.1	0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	NE	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	1.0	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	0.2	1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	7.0	7.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.002	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Xylenes (Total)	10.0	10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTES: All results reported in milligrams per liter (mg/L) or parts per million (ppm).
NE = Not Established
* = 35 IAC 742. Appendix B, Table E
Bold = Detected **Bold** = Exceeds Groundwater Remediation Objective

TABLE 6.1.2-4
General Chemistry Analyses of Glacial Drift Groundwater Monitoring Wells

The Lockformer Company / Lisle, Illinois

PARAMETERS	WELL ID									
	MW-101	MW-120	MW-123	MW-126	MW-401	MW-402	MW-500D	MW-501D	MW-502S	MW-504D
Dissolved Oxygen	8.07	0.68	5.2	0	1.41	0.88	0.91	4.87	4.44	0.7
Oxygen Reduction Potential	81	-22	14	-8	11	45	-24	71	111	19
Chloride	250	268	1,600	380	268	233	582	411	8	475
Chemical Oxygen Demand	26	15	<10	<10	<10	<10	<10	<10	25	12
Nitrate	<0.10	<0.10	0.64	0.5	<0.10	0.25	<0.10	0.88	<0.10	1.32
Sulfate	226	400	69	86	490	203	140	480	30	140
Sulfide	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	3.07	4.32	1.66	1.2	1.4	1.19	2.01	1.06	4.6	2.2
Iron	<0.01	<0.01	0.14	0.09	0.24	0.02	0.42	0.02	0.06	1.38
Manganese	0.194	<0.001	0.101	0.009	0.222	0.322	0.026	0.151	0.057	0.226
Ethane	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
Ethene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015

NOTES: All parameters in ppm except: Oxygen Reduction Potential (milliVolts).

TABLE 6.1.2-4
General Chemistry Analyses of Glacial Drift Groundwater Monitoring Wells

The Lockformer Company / Lisle, Illinois

PARAMETERS	WELL ID									
	MW-508D	MW-513D	MW-514D	MW-515D	MW-516D	MW-517D	MW-521	MW-522	MW-1100S	MW-1101S
Dissolved Oxygen	0.46	0.09	0	0	0.63	0	1.06	0.83	1.12	0
Oxygen Reduction Potential	129	-64	-42	-39	4	-29	63	43	79	31
Chloride	81	116	98	266	817	389	311	76	66	29
Chemical Oxygen Demand	<10	11	<10	10	<10	<10	<10	<10	12	10
Nitrate	2.25	<0.10	<0.10	<0.10	0.25	<0.10	0.11	0.14	<0.10	<0.10
Sulfate	95	183	154	163	124	317	314	132	95	98
Sulfide	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	1.8	1.2	1.2	1.2	1.64	1.16	1.3	1.6	1.2	1.3
Iron	0.01	<0.01	0.56	1.16	0.28	0.81	0.03	0.06	0.47	<0.01
Manganese	0.202	0.024	0.039	0.148	0.032	0.32	0.01	0.049	0.018	0.335
Ethane	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
Ethene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015

NOTES: All parameters in ppm except: Oxygen Reduction Potential (milliVolts).

TABLE 6.1.2-4
General Chemistry Analyses of Glacial Drift Groundwater Monitoring Wells

The Lockformer Company / Lisle, Illinois

PARAMETERS	WELL ID									
	MW-1102S	MW-1103S	MW-1103M	MW-1104S	MW-1108S	MW-1109	MW-1110S	MW-1111S	MW-1112S	MW-1113S
Dissolved Oxygen	0	0	0	0.11	0.61	0	0.36	1.31	0	3.72
Oxygen Reduction Potential	-63	20	-108	38	-27	-29	-104	87	42	75
Chloride	188	120	494	103	289	156	98	118	88	104
Chemical Oxygen Demand	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nitrate	<0.10	0.1	<0.10	0.27	1.02	0.87	<0.10	2.44	<0.10	0.16
Sulfate	163	124	198	96	156	126	75	87	203	350
Sulfide	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	3.4	4.8	2.8	4.6	1.4	2.2	1.1	1	1.1	2.5
Iron	1.31	0.26	0.67	0.24	1.03	0.06	0.67	0.01	0.02	0.02
Manganese	0.215	0.201	0.162	0.144	0.04	0.39	0.255	0.047	0.224	0.471
Ethane	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
Ethene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015

NOTES: All parameters in ppm except: Oxygen Reduction Potential (milliVolts).

TABLE 6.1.2-4
General Chemistry Analyses of Glacial Drift Groundwater Monitoring Wells

The Lockformer Company / Lisle, Illinois

PARAMETERS	WELL ID								
	MW-1113M	MW-1113M Duplicate 4	MW-1114S	MW-1115	MW-1116	MW-1600S	MW-1601S	MW-1602S	MW-1602S Duplicate 6
Dissolved Oxygen	0	0	0	3.82	4.86	0	3.38	7.09	7.09
Oxygen Reduction Potential	-37	-37	-87	204	123	1	185	201	201
Chloride	337	311	116	82	196	232	316	144	144
Chemical Oxygen Demand	<10	<10	<10	<10	<10	<10	13	<10	<10
Nitrate	0.25	0.28	<0.10	1.49	1.51	0.85	1.73	1.82	1.78
Sulfate	106	104	135	169	106	136	89	44	44
Sulfide	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	1.2	1.2	2.3	18	9	9.8	16	5.1	7.6
Iron	0.16	0.16	0.04	0.01	0.04	0.08	<0.01	<0.01	<0.01
Manganese	0.053	0.052	0.136	0.282	0.062	0.027	0.05	0.002	0.002
Ethane	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
Ethene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015

NOTES: All parameters in ppm except: Oxygen Reduction Potential (milliVolts).

TABLE 6.1.2-5
Groundwater Analyses from Homes Located Along Chicago, Elm, and Ogden

The Lockformer Company / Lisle, Illinois

PIN	STREET NUMBER	STREET NAME	CITY	STATE	ZIP CODE	SAMPLE ID	DATE	PCE	TCE	CIS-1,2-DC	1,1,1-TCA	1,2-DCA	1,1-DCE	1,1-DCA	VC	MTBE
	511	Chicago Avenue	Lisle	IL	60532	511 Chicago	08/11/00	<5	<5	<5	<5	<5	<5	<5	<10	
	515	Chicago Avenue	Lisle	IL	60532	515 Chicago	07/21/99	<5	<5	<70	<200	<5	<7	<4,000	<2	
	515	Chicago Avenue	Lisle	IL	60532	515 Chicago	08/11/00	<5	<5	<5	<5	<5	<5	<5	<10	
0811200002	515	Chicago Avenue	Lisle	IL	60532	G230	12/19/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4703	Elm Street	Lisle	IL	60532	G291	01/29/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4705	Elm Street	Lisle	IL	60532	4705 Auvergne	10/06/00	<5	<5	<5	<5	<5	<5	<5	<10	
	4708	Elm Street	Lisle	IL	60532	4708 Elm	07/21/99	<5	<5	<70	<200	<5	<7	<4000	<2	
	4708	Elm Street	Lisle	IL	60532	4708 Elm	08/11/00	<5	<5	<5	<5	<5	<5	<5	<10	
	4708	Elm Street	Lisle	IL	60532	4708 Elm	10/06/00	<5	<5	<5	<5	<5	<5	<5	<10	
0811104003	4708	Elm Street	Lisle	IL	60532	G229	12/19/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	631	Ogden Avenue	Lisle	IL	60532	631 Ogden	07/21/99	<5	<5	<70	<200	<5	<7	<4000	<2	
	631	Ogden Avenue	Lisle	IL	60532	631 Ogden (tenant)	07/26/99	<5	<5	<70	<200	<5	<7	<4000	<2	

NOTES:

Values expressed in micrograms per liter.

TABLE 6.2.1-1
Soil Analytical Results
1500 Series Soil Borings Performed in Area 3

The Lockformer Company / Lisle, Illinois

Sample ID	Depth (bgs)	Material Description (b)	Collection Date	Constituents and Objectives (a)					
				1,1,1-TCA	1,1-DCE	Trans-1,2-DCE	Cis-1,2-DCE	TCE	PCE
				2,000	60	700	400	60	60
CSB-1500	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1501	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1502	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	16'-18'	GM	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1503	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1504	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1505	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1506	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1507	2'-4'	CL	10/22/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/22/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/22/01	<150	<50	<50	<50	<50	<50
CSB-1508	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1509	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1510	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1511	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1512	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1513	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1514	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	8'-10'	GC	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1515	2'-4'	CL	10/23/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/23/01	<150	<50	<50	<50	<50	<50
CSB-1527	2'-4'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/24/01	<150	<50	<50	<50	<50	<50
CSB-1528	2'-4'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/24/01	<150	<50	<50	<50	<50	<50

NOTES:

(a) Most conservative remediation objective established in 35 IAC 742 Appendix B. Table A.

(b) Unified Soil Classification System (USCS)

Results in micrograms per kilogram or parts per billion.

= Exceeds objective

= Indicates analysis conducted at First Environmental Laboratories, Inc.

TABLE 6.2.1-1
Soil Analytical Results
1500 Series Soil Borings Performed in Area 3

The Lockformer Company / Lisle, Illinois

Sample ID	Depth (bgs)	Material Description (b)	Collection Date	Constituents and Objectives (a)					
				1,1,1-TCA	1,1-DCE	Trans-1,2-DCE	Cis-1,2-DCE	TCE	PCE
				2,000	60	700	400	60	60
CSB-1529	2'-4'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/24/01	<150	<50	<50	<50	**331**	<50
CSB-1530	2'-4'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	14'-15.5'	CL	10/24/01	<150	<50	<50	<50	<50	<50
CSB-1542	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	20'-22'	GC	10/25/01	<150	<50	<50	<50	<50	<50
CSB-1543	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	20'-22'	GC	10/25/01	<150	<50	<50	<50	<50	<50
CSB-1544	2'-4'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/24/01	<150	<50	<50	<50	<50	<50
CSB-1545	2'-4'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	6'-8'	CL	10/24/01	<150	<50	<50	<50	<50	<50
	14'-16'	GC	10/24/01	<150	<50	<50	<50	<50	<50
CSB-1546	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	14'-16'	SC	10/25/01	<150	<50	<50	<50	<50	<50
CSB-1547	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/25/01	<150	<50	<50	<50	<50	<50
CSB-1548	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	14'-16'	SC	10/25/01	<150	<50	<50	<50	<50	<50
CSB-1549	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	SC	10/25/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/25/01	<150	<50	<50	<50	**18**	<50
CSB-1550	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/25/01	<150	<50	<50	<50	<50	<50
CSB-1551	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	SC	10/25/01	<150	<50	<50	<50	**27**	<50
CSB-1552	2'-4'	CL	10/25/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/26/01	<150	<50	<50	<50	<50	<50
CSB-1553	2'-4'	SC	10/26/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	10/26/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/26/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/26/01	<150	<50	<50	<50	<50	<50

NOTES:

(a) Most conservative remediation objective established in 35 IAC 742 Appendix B. Table A.

(b) Unified Soil Classification System (USCS)

Results in micrograms per kilogram or parts per billion.

= Exceeds objective

= Indicates analysis conducted at First Environmental Laboratories, Inc.

TABLE 6.2.1-1
Soil Analytical Results
1500 Series Soil Borings Performed in Area 3

The Lockformer Company / Lisle, Illinois

Sample ID	Depth (bgs)	Material Description (b)	Collection Date	Constituents and Objectives (a)					
				1,1,1-TCA	1,1-DCE	Trans-1,2-DCE	Cis-1,2-DCE	TCE	PCE
				2,000	60	700	400	60	60
CSB-1554	2'-4'	GM	10/26/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/26/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/26/01	<150	<50	<50	<50	15	<50
	20'-22'	GM	10/26/01	<150	<50	<50	<50	<50	<50
	26'-28'	GM	10/26/01	<150	<50	<50	<50	<50	<50
CSB-1555	2'-4'	CL	10/26/01	<150	<50	<50	<50	11	<50
	8'-10'	GM	10/29/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/29/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/29/01	<150	<50	<50	<50	<50	<50
CSB-1556	2'-4'	GM	10/26/01	<150	<50	<50	<50	26	<50
	8'-10'	GM	10/26/01	<150	<50	<50	<50	30	<50
	14'-16'	GM	10/26/01	<150	<50	<50	<50	42	<50
	20'-22'	GM	10/29/01	<150	<50	<50	<50	<50	<50
CSB-1557	2'-4'	GM	10/29/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/29/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/29/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/29/01	<150	<50	<50	<50	42	<50
	24'-26'	GM	10/29/01	<150	<50	<50	<50	<50	<50
CSB-1558	2'-4'	CL	10/30/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/30/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/30/01	<150	<50	<50	<50	<50	<50
	22'-24'	CL	10/30/01	<150	<50	<50	<50	310	<50
CSB-1559	2'-4'	CL	10/30/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/30/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/30/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/30/01	<150	<50	<50	<50	<50	<50
CSB-1560	2'-4'	CL	10/30/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/30/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	10/30/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/30/01	<150	<50	<50	<50	<50	<50
CSB-1561	2'-4'	CL	10/30/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/30/01	<150	<50	<50	<50	21	<50
	14'-16'	GM	10/30/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/30/01	<150	<50	<50	<50	173	<50
CSB-1562	2'-4'	CL	11/5/01	<150	<50	<50	<50	<50	<50
	10'-12'	GM	11/5/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	11/5/01	<150	<50	<50	<50	64	29
	16'-18	CL	11/5/01	<150	<50	<50	<50	378	326
	22'-24'	CL	11/5/01	<150	<50	<50	<50	1,694	927
	22'-24'	CL	11/5/01	<5	<5	<5	<5	196	188
	26'-28'	GM	11/5/01	<150	<50	<50	<50	1,092	404
	26'-28'	GM	11/5/01	<5	<5	<5	<5	60.2	55.7
	30'-32'	CL	11/5/01	<150	<50	<50	<50	551	166

NOTES:

(a) Most conservative remediation objective established in 35 IAC 742 Appendix B. Table A.

(b) Unified Soil Classification System (USCS)

Results in micrograms per kilogram or parts per billion.

= Exceeds objective

= Indicates analysis conducted at First Environmental Laboratories, Inc.

TABLE 6.2.1-1
Soil Analytical Results
1500 Series Soil Borings Performed in Area 3

The Lockformer Company / Lisle, Illinois

Sample ID	Depth (bgs)	Material Description (b)	Collection Date	Constituents and Objectives (a)					
				1,1,1-TCA	1,1-DCE	Trans-1,2-DCE	Cis-1,2-DCE	TCE	PCE
				2,000	60	700	400	60	60
CSB-1563	2'-4'	CL	11/1/01	<150	<50	<50	<50	<50	<50
	6'-8'	GM	11/1/01	<150	<50	<50	<50	<50	<50
CSB-1564	2'-4'	CL	11/1/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	11/1/01	<150	<50	<50	<50	<50	<50
	14'-16'	GM	11/1/01	<150	<50	<50	<50	110	<50
	18'-20'	GM	11/1/01	<150	<50	<50	<50	279	<50
	20'-22	GM	11/1/01	<150	<50	<50	<50	16	<50
	22'-24'	SP	11/1/01	<150	<50	<50	<50	758	58
	24'-26'	GM	11/1/01	<150	<50	<50	<50	41	<50
	26'-28'	GM	11/1/01	<150	<50	<50	<50	445	43
	28'-30'	GM	11/1/01	<150	<50	<50	<50	124	<50
CSB-1565	2'-4'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/31/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	18'-20'	GM	10/31/01	<150	<50	<50	<50	418	81
	22'-24	SP	10/31/01	<150	<50	<50	<50	139	31
CSB-1566	2'-4'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/31/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	18'-20'	GM	10/31/01	<150	<50	<50	<50	466	90
	20'-22'	GM	10/31/01	<150	<50	<50	<50	<50	<50
	22'-24'	GM	10/31/01	<150	<50	<50	<50	58	<50
CSB-1567	6'-8'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	11/1/01	<150	<50	<50	<50	<50	<50
	16'-18'	GM	11/1/01	<150	<50	<50	<50	86	<50
	18'-20'	GM	11/1/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	11/1/01	<150	<50	<50	<50	<50	<50
	22'-24'	GM	11/1/01	<150	<50	<50	<50	<50	<50
CSB-1568	2'-4'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	8'-10'	SM	10/31/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/31/01	<150	<50	<50	<50	73	<50
CSB-1569	6'-8'	GM	10/31/01	<150	<50	<50	<50	<50	<50
	10'-12'	GM	10/31/01	<150	<50	<50	<50	<50	<50
	16'-18'	GM	10/31/01	<150	<50	<50	<50	269	<50
	20'-22'	GM	10/31/01	<150	<50	<50	<50	<50	<50
	22'-24	CL	10/31/01	<150	<50	<50	<50	<50	<50
CSB-1570	2'-4'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	8'-10'	GM	10/31/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	10/31/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	10/31/01	<150	<50	<50	<50	18	<50
	22'-24'	SP	10/31/01	<150	<50	<50	<50	34	<50

NOTES:

(a) Most conservative remediation objective established in 35 IAC 742 Appendix B. Table A.

(b) Unified Soil Classification System (USCS)

Results in micrograms per kilogram or parts per billion.

= Exceeds objective

= Indicates analysis conducted at First Environmental Laboratories, Inc.

TABLE 6.2.1-1
Soil Analytical Results
1500 Series Soil Borings Performed in Area 3

The Lockformer Company / Lisle, Illinois

Sample ID	Depth (bgs)	Material Description (b)	Collection Date	Constituents and Objectives (a)					
				1,1,1-TCA	1,1-DCE	Trans-1,2-DCE	Cis-1,2-DCE	TCE	PCE
				2,000	60	700	400	60	60
CSB-1571	4'-6'	CL	11/5/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	11/5/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	11/5/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	11/5/01	<150	<50	<50	<50	<50	<50
	20'-22'	GM	11/5/01	<5	<5	<5	<5	<5	<5
	22'-24'	GM	11/5/01	<150	<50	<50	<50	<50	<50
	22'-24'	GM	11/5/01	<5	<5	<5	<5	<5	<5
	26'-28'	GM	11/5/01	<150	<50	<50	<50	<50	<50
CSB-1572	2'-4'	CL	11/5/01	<150	<50	<50	<50	<50	<50
	8'-10'	CL	11/5/01	<150	<50	<50	<50	<50	<50
	14'-16'	CL	11/5/01	<150	<50	<50	<50	<50	<50
	20'-22'	CL	11/5/01	<150	<50	<50	<50	**159**	<50
	20'-22'	CL	11/5/01	<5	<5	<5	<5	**66.8**	<5
	26'-28'	GM	11/5/01	<150	<50	<50	<50	<50	<50
	26'-28'	GM	11/5/01	<5	<5	<5	<5	<5	<5
CSB-1573	14'-16'	GM	11/6/01	<5	<5	<5	<5	**8**	<5
	18'-20'	GM	11/6/01	<5	<5	<5	<5	**12.3**	<5
	20'-22'	GM	11/6/01	<5	<5	<5	<5	**13.8**	<5
	22'-24'	GM	11/6/01	<5	<5	<5	<5	**15.2**	<5

NOTES:

(a) Most conservative remediation objective established in 35 IAC 742 Appendix B. Table A.

(b) Unified Soil Classification System (USCS)

Results in micrograms per kilogram or parts per billion.

= Exceeds objective

= Indicates analysis conducted at First Environmental Laboratories, Inc.

TABLE 6.2-2
Groundwater Grab Sample Analytical Results
Area 3

The Lockformer Company / Lisle, Illinois

Sample ID	Relative Depth	Collection Date	Constituents and Objectives (a)					
			1,1,1-TCA	1,1-DCE	Trans-1,2-DCE	Cis-1,2-DCE	TCE	PCE
			200	7	100	70	5	5
CSB-1548	Shallow	10/26/01	<3	<1	<1	<1	18	<1
CSB-1549	Shallow	10/26/01	<3	<1	<1	<1	8	<1
CSB-1550	Shallow	10/26/01	<3	<1	<1	<1	20	<1
CSB-1551	Shallow	10/26/01	<3	<1	<1	<1	3	<1
CSB-1552	Shallow	10/26/01	<3	<1	<1	<1	12	<1
CSB-1553	Deep	10/29/01	<3	<1	<1	<1	42	<1
CSB-1554	Deep	10/26/01	<3	<1	<1	<1	19	<1
CSB-1555	Deep	10/29/01	<3	<1	<1	<1	4	<1
CSB-1556	Deep	10/29/01	<3	<1	<1	<1	13	2
CSB-1557	Deep	10/29/01	<3	<1	<1	<1	53	6
CSB-1558	Deep	10/30/01	<3	<1	<1	<1	9	<1
CSB-1559	Deep	10/30/01	<3	<1	<1	<1	18	<1
CSB-1560	Deep	10/30/01	<3	<1	<1	<1	11	<1
CSB-1561	Deep	10/30/01	<3	<1	<1	<1	2	<1
CSB-1562	Deep	11/05/01	<3	<1	<1	2	180	14
CSB-1562	Deep	11/05/01	<5	<5	<5	<5	220	24.4
CSB-1564	Deep	11/01/01	<3	<1	<1	4	31	3
CSB-1565	Deep	11/01/01	<3	<1	<1	4	34	4
CSB-1566	Deep	10/31/01	<3	<1	<1	4	221	5
CSB-1567	Deep	11/01/01	<3	<1	<1	4	11	2
CSB-1568	Deep	10/31/01	<3	<1	<1	1	25	1
CSB-1569	Deep	10/31/01	<3	<1	<1	<1	11	1
CSB-1570	Deep	10/31/01	<3	<1	<1	<1	9	1
CSB-1573	Deep	11/06/01	<5	<5	<5	<5	30.5	<5

NOTES:

a = TACO Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Class I Groundwater Ingestion Route established in 35 IAC 742 Appendix B.Table E.

Results in micrograms per liter or parts per billion.

Shallow = approximately 10 to 12 feet below ground surface (bgs)

Deep = approximately 24 to 28 feet bgs

= indicates analysis conducted at First Environmental Laboratories, Inc.

= exceeds objective

7.0 ENDANGERMENT ASSESSMENT

7.1 RECOGNIZED ENVIRONMENTAL CONDITIONS

The following is a list of recognized environmental conditions determined to be present at the Lockformer site to date.

- Delivery spills at the former TCE fill pipe and tank area
- Releases in the former vapor degreaser area
- Releases from the sanitary sewer system
- Releases to the existing and former drainage ways

Figure 2.4.3-1 identifies the known, suspected, or potential sources of contamination at the Lockformer site. Section 6.0 discusses the investigation results currently available for each area of concern, and the current understanding of the extent of migration of constituents of concern away from these areas in groundwater. Discussions undertaken in this section of the report will focus on the current understanding of the extent of contamination pertaining to routes of exposure, and practical limitations related to remedial options.

7.1.1 The Former TCE Fill Pipe and Tank

The 500-gallon, roof-mounted TCE tank at the Lockformer facility was taken out of service in June 1999. It was replaced by a double-walled 250-gallon aboveground tank with secondary containment that was positioned inside the facility building. The fill port for this tank is located on the west wall of the facility building and is constructed to secondarily contain any releases from hose disconnections.

7.1.1.1 Releases or Threatened Releases from the Former TCE Fill Pipe and Tank

Releases from delivery spills while filling the former 500-gallon roof-mounted tank likely occurred from the time the Lockformer facility started operations in March 1969 until approximately 1991. During that period of time, the releases occurred in two ways.

One type of release occurred from overfilling the roof-mounted TCE tank. The overfill releases caused TCE to exit from the tank vent pipe onto the ground directly adjacent to the fill pipe. Lockformer personnel became aware of these overfill releases in approximately 1985 and began using a container under the TCE fill and vent pipes to contain the overfill releases.

The second type of release known to have occurred in the TCE fill pipe area resulted from the hose disconnections from TCE delivery trucks. These releases occurred after completion of filling operations for the TCE tank. The hose used to fill the tank was disconnected from the fill line and placed on the ground prior to disconnecting the hose from the fill truck. During this time, some TCE would drain from the hose onto the ground. These types of releases ceased in approximately 1991 when the delivery trucks began using secondary containment during their disconnect operations and drip-less shutoff valves.

7.1.1.2 Routes of Exposure from the Former TCE Fill Pipe and Tank Area

The routes of exposure from the former TCE fill pipe and tank area are primarily related to worker exposure to impacted soils in the area through direct contact and inhalation, and the migration of the chemicals of concern from the impacted soils to groundwater.

7.1.2 The Former Vapor Degreaser Area

Lockformer performed degreasing operations from the start of operations at the facility in March 1969 until February 2001 when the vapor degreaser was taken out of service. In August 1997, the original vapor degreaser used at the facility was replaced with a new unit. During operation, the degreasers typically contained approximately 20 to 50 gallons of TCE either in the bottom of the degreaser or in its reservoir. In approximately 1988, a TCE distillation system for recovery was installed. Prior to the distillation system installation, Lockformer would periodically (about every six weeks) clean out the tank bottoms that would accumulate in the degreaser.

7.1.2.1 Releases or Threatened Releases from the Former Vapor Degreaser Area

Releases have occurred to soils around the former degreaser from past operational practices. The data collected to date suggest that releases to soils in the vicinity of the former degreaser have not impacted soils at depths greater than 16 feet.

7.1.2.2 Routes of Exposure from the Former Vapor Degreaser Area

The possible routes of exposure from contaminated soils around the former vapor degreaser include worker exposure by direct contact or inhalation, and the potential for migration of constituents of concern to groundwater.

7.1.3 The Sanitary Sewer System

The sanitary sewer system at the Lockformer facility was constructed and installed during facility building construction that took place in 1968 and early 1969. One sanitary sewer line, the line coming out of the boiler room at the southwest corner of the facility, was added later when this addition was constructed.

7.1.3.1 Releases or Threatened Releases from the Sanitary Sewer System

A significant amount of investigation has been directed at determining the extent to which the sanitary sewer system at the Lockformer facility has contributed to releases and the migration of constituents of concern at the site. The bedding material around the sewer system under the facility building has been sampled extensively and determined to not be a significant contributor to releases or migration of constituents of concern at the site. The bedding materials around the sewer system and other utilities at the north end of the site (west of the facility building) have been day-lighted by trench excavations and sampled. These trench investigations have determined that the sanitary sewer and other utility backfill bedding materials have not been a significant contributor to release or migration of constituents of concern at the site. However, the methods of construction of the manholes should be assessed and further investigations should be conducted adjacent to each manhole along the sanitary sewer at the facility.

Releases from the Lockformer and Lisle sanitary sewer lines at the south end of the Lockformer facility on the MetCoil parcel in Area 3 are documented. These releases appear to have come from piping connections to manholes, and from the piping joints along these sections of the piping runs.

7.1.3.2 Routes of Exposure from the Sanitary Sewer System

The routes of exposure from releases along the sanitary sewer lines in Area 3 are primarily related to worker exposure to impacted soils in the area through direct contact and inhalation, and the migration of the chemicals of concern from the impacted soils to groundwater.

7.1.4 Existing and Former Drainage Ways

The surficial drainage pathways at and in the vicinity of the Lockformer facility have changed significantly over the years of operation. One reason for this is the significant amount of construction that has taken place on the adjacent properties that have impacted drainage on the Lockformer property. Another significant impact on the drainage of the Lockformer site is the extensive amount of fill placed on the MetCoil parcel in Areas 2 and 3 sometime between 1981 and 1986. Since this fill was emplaced during the years of operation of the facility, it is possible that soil impacted by facility operations was buried.

The USEPA has performed an analysis of historical aerial photographs for the facility. As a result of this analysis, Lockformer will perform a significant amount of work during upcoming investigations analyzing any impacts to existing or former drainage ways around the Lockformer site.

7.1.4.1 Releases or Threatened Releases from the Former Drainage Ways

Existing and former drainage ways at the Lockformer facility have been identified as a possible source of contamination. Currently, the extent and nature of any releases to the existing or former drainage ways is undetermined.

7.1.4.2 Routes of Exposure from the Former Drainage Ways

If it is determined that contamination exists in the former drainage ways, exposure to offsite areas could be possible. As a result, direct contact and inhalation exposure to local residents is possible if these drainage ways were determined to be impacted in the residential area. For any contamination determined to be present in the former drainage ways onsite, the primary worker exposure would result from direct contact and inhalation

exposure to the impacted soils. Migration of the constituents of concern from the impacted soils to groundwater would pose another significant route of exposure.

7.2 CONTAMINANT MIGRATION FATE AND TRANSPORT

A great deal of investigation data have been developed for the Lockformer site. However, a number of data gaps currently exist. The fate and transport of constituents of concern from source areas on the Lockformer site is discussed below, to the extent that current understanding from data collected allows.

In all instances, the Class I Groundwater Remediation Objectives are understood to apply to all constituents of concern for the Lockformer site at the Lockformer site boundary.

7.2.1 The Former TCE Fill Pipe and Tank

Lockformer submitted a work plan to USEPA on April 15, 2002 that defines the nature of additional investigation and remedial activities to be undertaken as part of the Unilateral Administrative Order (UAO) Docket No. V-W-02-665 issued by USEPA. The scope of work presented in the Lockformer Work Plan of April 15, 2002 was defined through numerous meetings and discussions undertaken with representatives from the USEPA, the IEPA, the IAG and their consultants, and after two previous revisions to the work plan. The current scope of work requires Lockformer to perform soil remediation in the vicinity of the former TCE fill pipe. The Lockformer Work Plan cleanup criteria for these soils utilize the TACO Tier I Exposure Route-Specific Values for Soils for an Industrial-Commercial worker inhalation value of 8.9 mg/kg for the fill/till. The mass waste unit cleanup criteria in this same area utilize the Class I Soil Component of the Groundwater Ingestion Exposure Route of 60 µg/kg.

While these soil cleanup criteria have been the subject of extensive discussions, the IEPA has raised an issue regarding the soil cleanup criterion for the fill/till of 8.9 mg/kg being low enough to be protective of the migration to groundwater route of exposure. The Lockformer Work Plan identifies that the silty clay fill/till soils in the vicinity of the former TCE fill pipe will be remediated through use of soil electrical resistive heating (ERH) technology. This technology is deemed to have the best track record of any in-situ remedial technology available to reduce the concentrations of chlorinated solvents to acceptable levels. However, there are limits to which the ERH technology can be effectively applied. Currently, there are no known in-situ technologies available that can reduce chlorinated solvent concentrations in cohesive, silty clay soils to the levels identified in the TACO for the Class I Soil Component of the Groundwater Ingestion Exposure Route.

The Lockformer Work Plan calls for reduction of the mass waste unit contamination to 60 µg/kg to be protective of the migration to groundwater route of exposure. Bench and pilot test studies are also planned to address soil contamination that exists along the upper surface of the lower till unit, and groundwater contamination in the saturated mass waste unit sediments.

7.2.1.1 Soils at the Former TCE Fill Pipe and Tank

Currently, good definition on the extent of contamination exists for soils impacted by releases from the former TCE fill pipe and tank. Lockformer will be performing further soil sampling in this area in preparation for performing remedial actions on these impacted soils. These additional investigations to be undertaken will more precisely define the volume of soils impacted above the cleanup objectives for the fill/till and the mass waste unit. It is currently anticipated that these soils will be remediated to 8.9 mg/kg and 0.060 mg/kg, respectively. Bench and pilot scale testing will be

performed to test remedial technologies capable of cleaning up the upper surface of the lower till and groundwater at the site.

7.2.1.2 Groundwater at the Former TCE Fill Pipe and Tank

As discussed in Section 6.1.2, groundwater contamination resulting from releases in the vicinity of the TCE fill pipe and tank have not resulted in contamination of the lower sand or the Silurian dolomite. There is also no indication that pure phase TCE as DNAPL has migrated from the shallow soil in the fill/till around the former TCE fill pipe to impact the mass waste unit or the saturated sediments in the mass waste unit in outlying areas away from the former TCE fill pipe. In fact, soil and groundwater data collected in Areas 1 and 2 indicate that limited precipitation infiltration occurs through the impacted soils around the former TCE fill pipe to generate groundwater contamination. It is currently undetermined if any contamination from the releases in the vicinity of the former TCE fill pipe have caused any offsite groundwater contamination.

While the data collected in Areas 1 and 2 suggest the former TCE fill pipe area has not caused extensive groundwater contamination to date, a substantial mass of contamination exists in soils and groundwater in this area. If left unremediated, this soil and groundwater contamination will cause further groundwater contamination in the future.

7.2.2 The Former Vapor Degreaser

The scope of work identified in the Lockformer Work Plan identifies an area of soils around the former vapor degreaser that exceeds the 8.9 mg/kg worker inhalation value for TCE, and the practicable limit of excavation there. Further soil investigation efforts are planned in this area to better define that extent of contamination.

7.2.2.1 Soils at the Former Vapor Degreaser

Soil investigation efforts around the former vapor degreaser inside the Lockformer facility building suggest that releases have occurred during historical operations of the degreaser. The extent of these releases to soil in the vicinity of the degreaser appear to be limited to shallow soils less than 16 feet in depth. The Lockformer building appears to have functioned as an engineered barrier to prevent precipitation infiltration and vertical mobilization of this soil contamination. The facility floor also serves as an engineered barrier to prevent direct contact and inhalation impacts from soils immediately below it. Lockformer removed the degreaser from service in February 2001 and plans to perform a limited excavation of soils around the former degreaser to remove contaminant mass there. This will include the concrete from the secondary containment vault and any backfill materials around it. The Lockformer building should continue to function well as an engineered barrier to prohibit exposure and mobilization of the soil contaminants.

Further investigation of the soil contamination around the former vapor degreaser is identified in the Lockformer Work Plan. These further soil investigations will aid in the excavation of soil around the degreaser.

7.2.2.2 Groundwater at the Former Vapor Degreaser

There is no indication that the former vapor degreaser has caused any groundwater contamination at the site. It is expected that the Lockformer facility will continue to function well as an engineered barrier to prevent groundwater contamination in the future.

7.2.3 The Sanitary Sewer System

The sanitary sewer system has been the source of several different investigations at the site. The sanitary sewer system under the facility building has been investigated. The sanitary sewer pipes and other utility lines in Areas 1 and 2 on the west side of the building have been day-lighted by excavation, and the bedding materials around them have been sampled to determine if the bedding materials have served as a migration pathway. Sediments collected in the sanitary sewer system manholes have been sampled. Significant sampling has been performed around the Lockformer and Lisle sanitary sewers in Area 3.

7.2.3.1 Soils at the Sanitary Sewer System

The soil and bedding materials around the sanitary sewer system under the Lockformer building were investigated. These investigations are described in Section 6.1.1.1. Soil investigation results for the sanitary sewer system under the building suggest that releases have not occurred that would cause concern to worker safety due to inhalation without the facility floor functioning as an engineered barrier. The sanitary sewer system under the facility building does not appear to have been a source of significant contaminant migration. Most samples of the bedding materials associated with the sanitary sewer system under the facility building exhibit concentrations that suggest impacts from vapor migration.

The soils and bedding materials around the sanitary sewers and other utility lines in Area 1 were day-lighted by trench excavation and sampled. The results of these investigations indicate that the sanitary sewer system in Areas 1 and 2 has not been a significant source of contaminant migration. None of the soils exceeded the Industrial-Commercial worker inhalation value. Most of the soil sampling of these bedding

materials indicated concentrations of constituents of concern consistent with vapor migration.

Soil sampling has been performed along the Lockformer and Lisle sanitary sewers in Area 3. The soil investigations to date indicate that the sanitary sewers in Area 3 have leaked to contaminate soils of the mass waste unit and groundwater. The applicable cleanup criterion for these soils is the Class I Soil Component of the Groundwater Ingestion Exposure Route of 60 µg/kg. The extent of soils in Area 3 that exceed this criterion is currently not defined. Future investigations to define the limits of soils exceeding 60 µg/kg are planned; however, current soil data suggest this value is not exceeded at an approximate distance of 60 feet from the sewer.

7.2.3.2 Groundwater at the Sanitary Sewer System

There are no data that suggest releases from the sanitary sewer lines in Areas 1 and 2 have caused or threaten to cause groundwater contamination at the site.

Releases from the Lockformer and Lisle sewer line in Area 3 have caused groundwater contamination of the mass waste unit sediments. The extent of the groundwater contamination around the Lockformer sanitary sewer line near monitoring well MW-1113S is expected to be limited in extent. The extent of groundwater contamination resulting from releases associated with the Lisle sanitary sewer line at the south end of Area 3 has not been defined. However, the following facts suggest this area of the Lockformer site has impacted the Front Street subdivision to the south of the Lockformer site:

- The groundwater flow direction in the mass waste unit at the south end of the Lockformer site is primarily to the south.

- The contact between the alluvial sequence associated with St. Joseph Creek and the saturated mass waste unit sediments on the Lockformer site appears to occur somewhere in close proximity to the south boundary of the Lockformer site.

- Visual observation of the grain-size and sorting of sediments comprising the coarse-grained lithologies interbedded within the St. Joseph Creek alluvial sequence suggest that increased hydraulic conductivities are inherent in these sediments.

- The St. Joseph Creek alluvial sequence is in direct hydraulic connection with the upper, weathered, and highly fractured surface of the Silurian dolomite in areas along Front Street.

- The occurrence of groundwater contamination in shallow wells, and not deeper wells, penetrating the Silurian dolomite at the north end of the Front Street subdivision suggest a shallow local source of contamination.

- Similar coarse-grained lithologies to those observed above bedrock on the west side of the Ellsworth Industrial District appear to occur within the Front Street subdivision to the south at approximately Gamble Street.

7.2.4 The Former Drainage Ways

The only drainage way sampling that has taken place on the Lockformer site to date has occurred along the east side of Areas 2 and 3. The soils and sediments along this drainage way were determined to not be impacted by site constituents of concern. Extensive former drainage way sampling is outlined in the Lockformer Work Plan and will take place in forthcoming investigation efforts.

7.2.4.1 Soils at the Former Drainage Ways

Insufficient data exist to provide an analysis of impacts to drainage way soils at the site.

7.2.4.2 Groundwater at the Former Drainage Ways

Insufficient data exist to provide an analysis of impacts to groundwater from former drainage way releases at the site.

7.3 COMPARISON OF CONTAMINATED MEDIA TO TIER I CRITERIA

For convenience of review the applicable soil and groundwater standards have been identified on the pertinent tables and figures used to compile this report. Samples exceeding the applicable standard for any media are identified.

SECTION 8

8.0 CONCLUSIONS

8.1 ASSESSMENT OF DATA SUFFICIENCY

A general assessment of data sufficiency will be made in this section on an area-by-area basis. Details regarding data sufficiency and data gaps have been discussed in the text of the report.

8.1.1 Assessment of Areas 1 and 2 Data Sufficiency

A great deal of data have been developed in Areas 1 and 2 related to soil contamination resulting from spills at the former TCE fill pipe area. Sufficient data have been collected to perform the design of the ERH remediation system for the fill/till impacted soils. Sufficient data have also been collected to perform the design of the soil vapor extraction remediation system for the impacted soils in the mass waste unit-impacted soil. The *Lockformer Work Plan*, which was submitted as a result of entering into the UAO with USEPA, identifies additional soil sampling that will take place prior to field implementation of the ERH and soil vapor extraction remediation systems. For details regarding this additional sampling, Sections 1.5.1 and 1.5.2 of the *Lockformer Work Plan*, Quality Assurance Project Plan (QAPP) should be consulted.

Prior to performing the remedial excavation activities around the former vapor degreaser in the Lockformer facility building, additional sampling will be performed. Section 1.5.1 of the *Lockformer Work Plan* QAPP provides details regarding this additional sampling effort.

At this time, data pertaining to existing and historical surface drainage ways is minimal and consist of data collected along the east side of Areas 2 and 3 south of the facility parking lot. Extensive sampling of existing and historic surface drainage ways will be

performed over the site as a whole. The nature of these investigations is identified in the *Lockformer Work Plan* QAPP in Section 1.5.5.

A data gap that exists in Areas 1 and 2 (and 3) is the potential leakage that has taken place along the sanitary sewer line at the manholes. The manhole construction methods and pipe connections at the manholes should be inspected, and soil sampling should be performed in close proximity to the manholes to determine their integrity.

8.1.2 Assessment of Area 3 Data Sufficiency

To date, preliminary investigations have been performed in Area 3 related to releases from the sanitary sewers. Section 1.5.4.1 of the *Lockformer Work Plan* QAPP identifies the additional studies that are currently anticipated to investigate releases from the sanitary sewer line. Section 1.5.5 of the *Lockformer Work Plan* QAPP identifies the additional drainage way investigations that will take place in Area 3.

The additional groundwater investigations identified in the *Lockformer Work Plan* involve the completion of four groundwater monitoring wells along the southern boundary of the Area 3 (two new monitoring wells in addition to the two existing monitoring wells, MW-1115 and MW-1116). Each monitoring well will be completed with a 10-foot well screen that is set across the upper surface of the water table.

Three groundwater monitoring well nests will be installed south of Area 3 along the Burlington Northern right-of-way, approximately 200 feet south of the Lockformer property line. Each well nest will have a shallow monitoring well screened in saturated, coarse-grained lithologies immediately above bedrock (or as close to bedrock as the coarse-grained lithologies occur). Each shallow well will be fitted with a 5-foot well screen.

Each of the three Burlington-Northern well nests will also have a double-cased well completed 25 feet into the competent, upper Silurian dolomite. These wells will be sampled by packer testing per the standard procedures utilized to date for investigations.

A data gap that exists in Area 3 is the potential leakage that has taken place along the sanitary sewer line at the manholes. The manhole construction method and pipe connections at the manholes should be inspected, and soil sampling should be performed in close proximity to the manholes to determine their integrity.

Sampling of the groundwater monitoring wells for VOCs along Front Street and Riedy Road in the Front Street subdivision south of Area 3 should be performed. These monitoring wells include MW-1603, MW-1604, MW-1605, BW-1, BW-2, and BW-3. The general chemistry parameters indicative of natural attenuation should be considered during these sample acquisition procedures.

Groundwater flow velocities within the saturated, glacial sediments; upper, weathered, and fractured portion of the Silurian dolomite; and lower, more competent Silurian dolomite are currently undetermined. The use of flow meters with packers to isolated zones within monitoring wells and bedrock coreholes should be considered.

There currently are no data available regarding the geotechnical characteristics of the St. Joseph Creek alluvial sediments. These parameters (including grain-size analysis, porosity [unconsolidated], fraction of organic carbon, and bulk density) should be determined.

No soil or groundwater transport data from the Lockformer site suggest that the occurrence of TCA in residential wells in the Front Street subdivision is attributable to the Lockformer site. Likewise, the most elevated concentrations of PCE determined to

be present at the northeast corner of the Front Street subdivision do not appear to be attributable to the Lockformer site.

8.2 RECOMMENDED FUTURE WORK

The following is a list of future work that should be considered:

1. Abandonment of the following monitoring wells: MW-120, MW-123, MW-5025, MW-5065, MW-504S, MW-508S, MW-401, MW-402, MW-501D, MW-513D, MW-514D, MW-515D, and MW-517D.

2. All the work identified in the *Lockformer Work Plan* dated April 12, 2002 should be completed.

3. All remaining wells that are part of the existing investigation should have another complete round of sampling performed. This should include the Lockformer-installed monitoring wells MW-1603, MW-1604, MW-1605, BW-1, BW-2, and BW-3 in the Front Street subdivision. The sampling procedures, with minor modifications, should be those identified in the May 25, 2001 *Comprehensive VOC Investigation Work Plan*. The general chemistry parameters associated with assessment of natural attenuation should be collected from wells where these data have not been collected in the past.

4. The manhole construction methods and pipe connections at the sanitary sewer manholes in Areas 1, 2, and 3 should be inspected, and soil sampling should be performed in close proximity to the manholes to determine their integrity.

5. The use of flow meters with packers to isolated zones within monitoring wells and bedrock coreholes should be considered to determine groundwater flow velocities within the saturated, glacial sediments; upper, weathered, and fractured portion of the Silurian dolomite; and lower, more competent Silurian dolomite.

6. Samples to analyze geotechnical characteristics of the St. Joseph Creek alluvial sediments should be collected during drilling of the new wells at the south end of Area 3. These analyses should include grain-size analysis, porosity (unconsolidated), fraction of organic carbon, and bulk density.

SECTION 9

SECTION 9

APPENDICES

SECTION 9.1

REFERENCES

9.1 REFERENCES

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